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THE REPUBLIC OF FINLAND

AN ECONOMIC AND FINANCIAL SURVEY

EDITED
BY
THE CENTRAL STATISTICAL BUREAU

HELSINKI (HELSINGFORS) 1920

FINLAND. STATISTISKA CENTRALBYRÅN.

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Preface.

This survey of political and economic conditions in Finland is published by the Central Statistical Bureau of Finland, in accordance with the wishes of the Council of State. Its main object is to furnish our visiters and friends, as well as foreign business-men, importers and financiers, with a general sketch of the aims and scope of the Finnish Republic, and especially in respect to economic affairs.

This survey was originally suggested by the Ministry for Foreign Affairs, and particularly by Dr. Toivo T. Kaila, former Secretary of State. The Central Statistical Bureau has planned, prepared, and collocated all editorial matter, and most of its officials have had some share in this.

The names of places are given in the text in either Finnish or Swedish, according to which language is mainly spoken in the respective places, while parenthesis represents the name in the language of the minority of inhabitants.

With regard to the maps of Finland, those for Forestry, Water-ways, and Traffic have been arranged by completing and remodeling corresponding maps, formerly published in a work of the Finnish Geographical Society's, entitled »Maps of Finland». The Geographical department of The Board of Land-surveying has had in hand the technical preparation of the maps.

In collecting the illustrations, the Central Statistical Bureau has received valuable assistance from different official departments, business-firms, and private persons, to whom it is gratefully indebted for much kindness.

The Central Statistical Bureau of Finland, Helsinki (Helsingfors) May 1:st 1920.

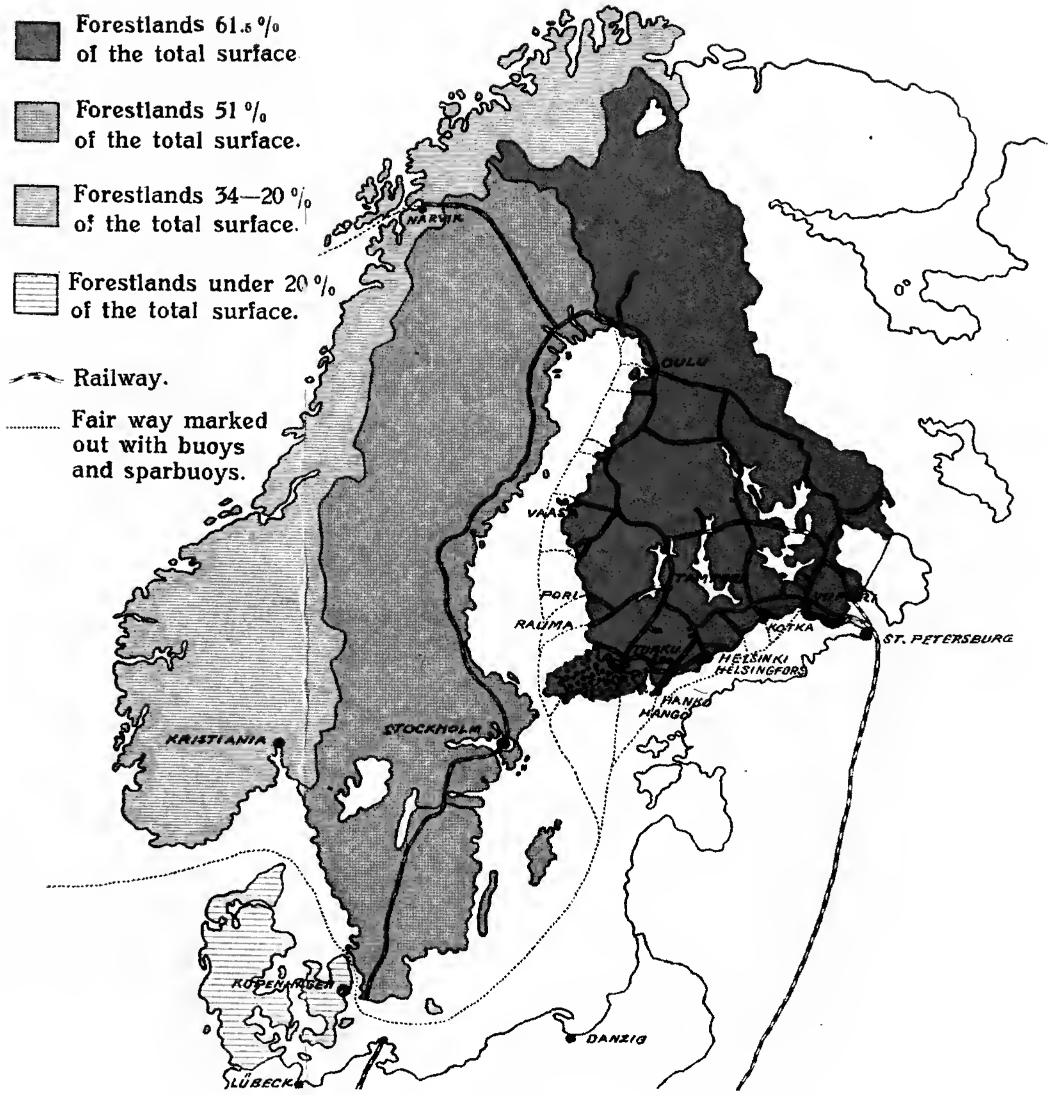
Martti Kovero.

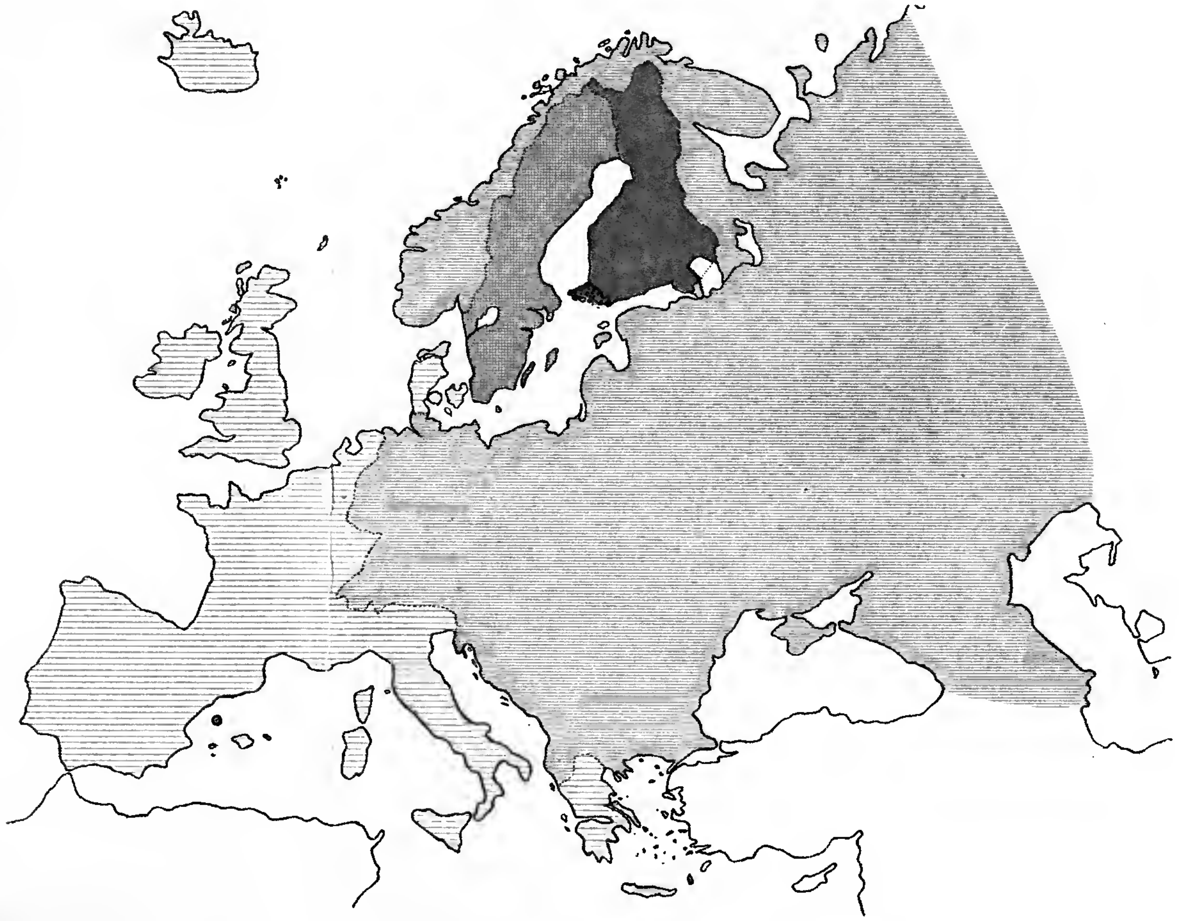
MAPS AND DIAGRAMS

Map of the Forests of Fenno-Scandia.

Maps and Diagrams.

Map of the Forests of Europe.


Forestlands 61.5 % of the total surface
Forestlands 51 % of the total surface.
Forestlands 34—20 % of the total surface.
Forestlands under 20 % of the total surface.
Railway.
Fair way marked out with buoys and sparbuoys.
NARVIK
OULU
VAASA
PORI
RAUMA
TURKU
KOTKA
ST. PETERSBURG
HELSINKI HELSINGFORS
HANKO HANGÖ
STOCKHOLM
KRISTIANIA
KØBENHAVN
DANZIG
LÜBECK



Finland is richer in forests than any other country in the world. 61.5 % of the total surface is covered with dense forests, while a further 30 % consists of sparsely wooded marshes.

The actual forestlands occupy an area of about 20 million hectares and the wooded marshes some 10 million hectares. It is only a very small part of the forestlands which does not yield more timber than is actually required for home consumption, nearly everywhere enough is grown for export also.

Geologically Finland is of the same formation as the Scandinavian peninsula, and together with Sweden, Norway, Karelia, and Olonets comes under the name of Fenno-Scandia.

The present Finnish-Russian frontier was fixed by the Treaty of Stolbowa in 1617, and was again affirmed by the Peace treaty of Hamina (Fredrikshamn) in 1809, and by the Imperial decree of 1811. As at present, however, it leaves on the Russian side Karelia and Olonets, provinces inhabited by Finns.

Average export of timber during periods of 3 years.

Years	Cubic measure
1883—1885	2.0 million
1891—1893	2.5 „
1901—1903	5.2 „
1911—1913	7.1 „
1914—1916	3.5 „
1917	2.8 „
1918	0.5 „

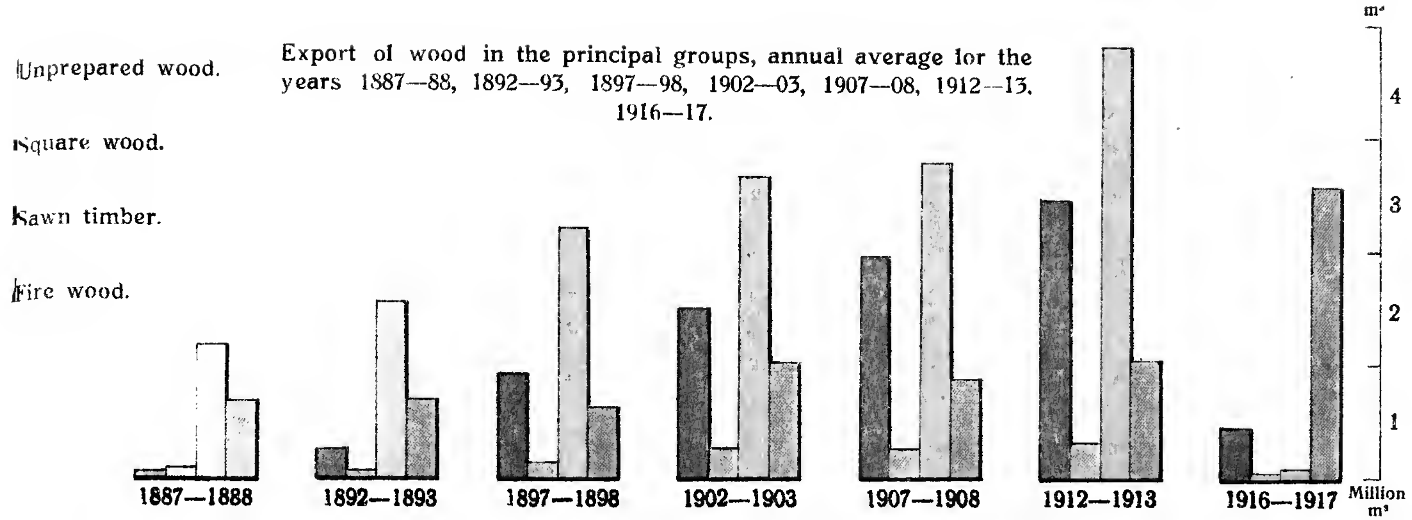
Average export of sawn timber during periods of 3 years.

Years	Cubic measure
1883—1885	1.4 million
1891—1893	1.6 „
1901—1903	2.5 „
1911—1913	3.6 „
1914—1916	0.6 „
1917	0.05 „
1918	0.2 „

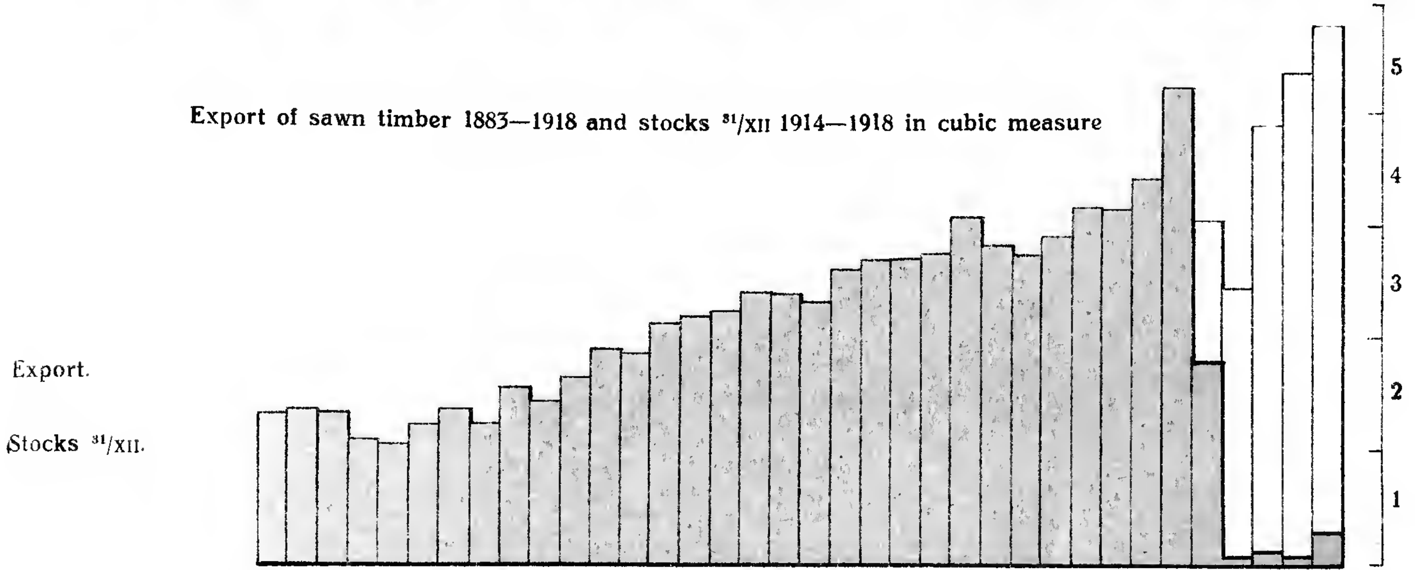
Stocks of sawn timber.

Year	Cubic measure
^{31}/XII 1914	1.3 million
^{31}/XII 1915	2.4 „
^{31}/XII 1916	3.8 „
^{31}/XII 1917	4.3 „
^{31}/XII 1918	4.5 „

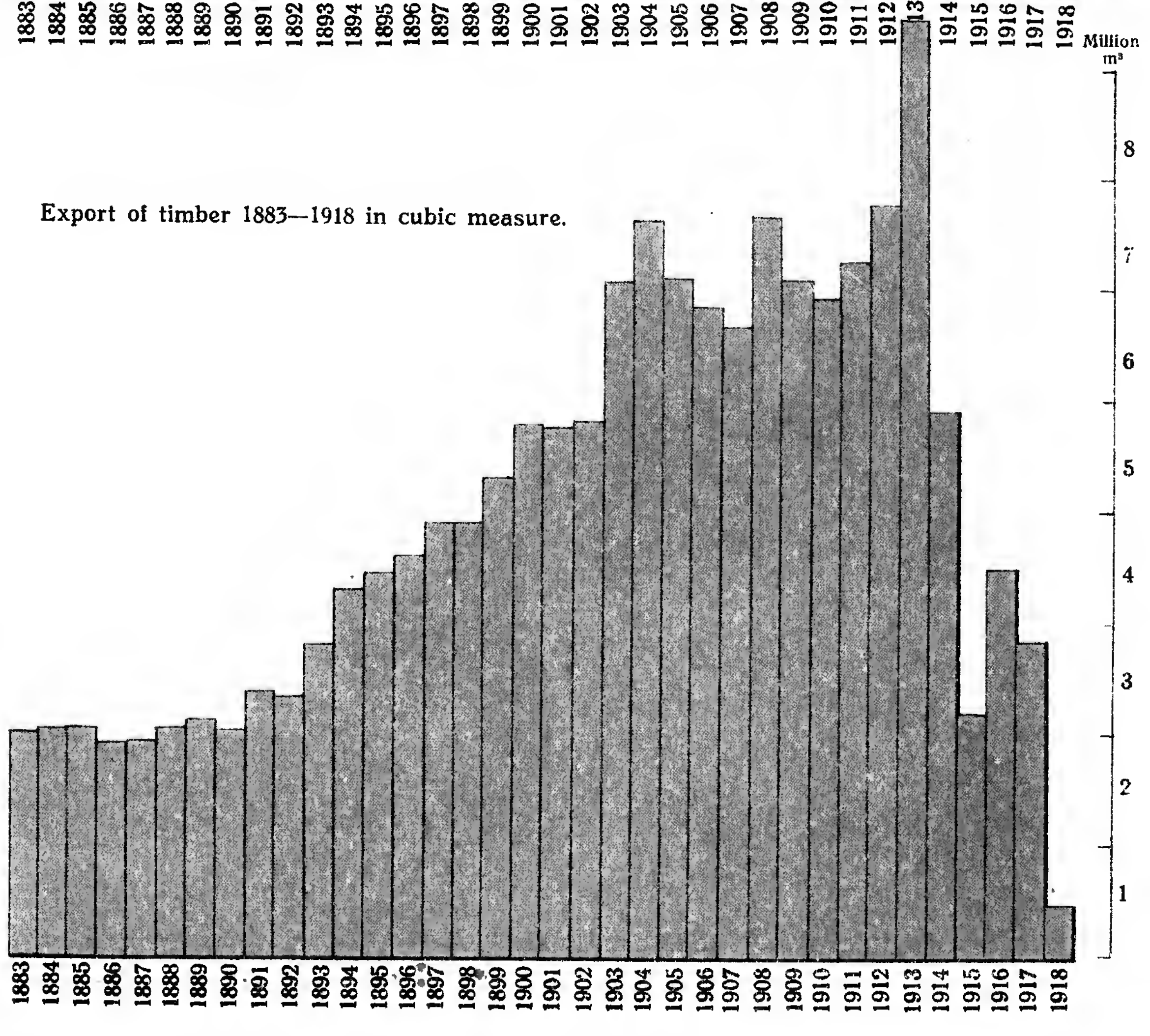
Map of Finnish Forests and Diagrams of the Wood and Paper Industry.



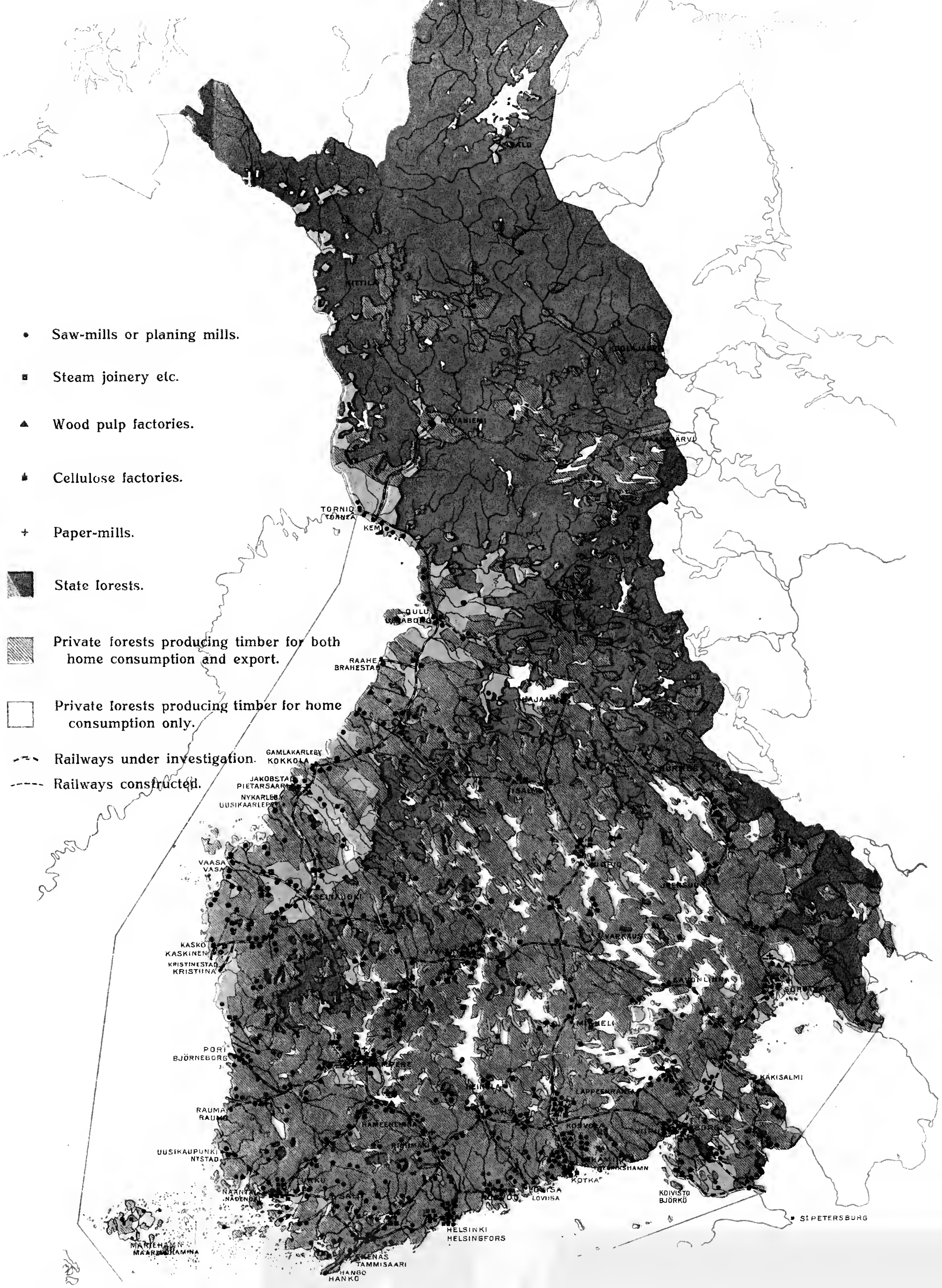
Export of wood in the principal groups, annual average for the years 1887—88, 1892—93, 1897—98, 1902—03, 1907—08, 1912—13, 1916—17.



Export of sawn timber 1883—1918 and stocks ³¹/XII 1914—1918 in cubic measure



Export of timber 1883—1918 in cubic measure.



A large portion of the Finnish forests is owned by the State, and includes 5.5 million hectares of actual forests, and 6.5 million hectares of marshes and other less poductive forestlands, being 12.0 million hectares in all.

Number of trees in the State forests on the 1 January 1917:

Trunks, height 1.3 metre, diameter 30 centimetre or over	76.612.612
Trunks, height 1.3 metre, diameter 25—30 centimetre	109.899.603
Total	186.512.215

Both State and private forests are crossed by innumerable water-ways along which timber can easily be transported to the large rivers. By these it is easy to reach the coast or the centres of the wood industry, situated in the southern part of the country. See map, and also that of ways and communications.

Besides the water-ways and railway system, the telegraph, telephone and postal services cover the entire country and extend even to the remote forest districts.

Average export of mechanical pulp, during periods of 3 years.

Years	Kg
1891—1893	14.7 million
1901—1903	25.8 „
1911—1913	50.7 „
1914—1916	38.0 „
1917	34.9 „
1918	55.7 „

Average export of chemical pulp, during periods of 3 years.

Years	Kg
1891—1893	0.7 million
1901—1903	4.0 „
1911—1913	75.6 „
1914—1916	61.5 „
1917	28.5 „
1918	37.8 „

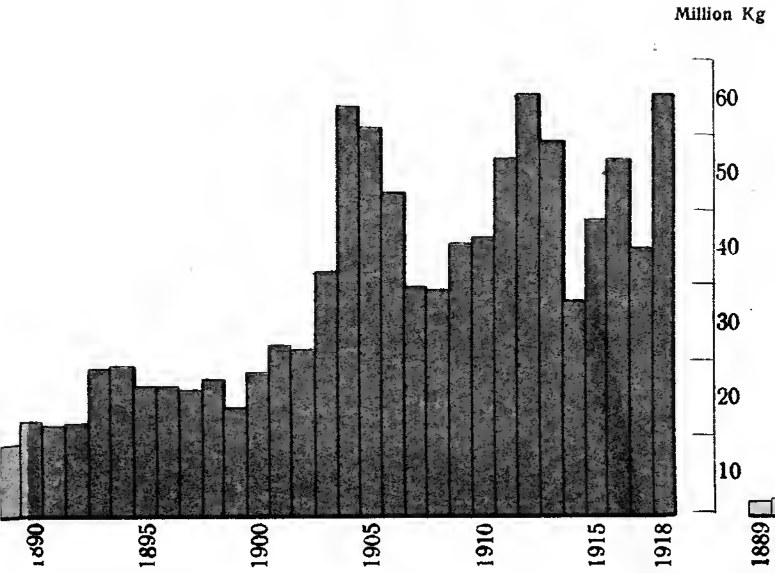
Average export of card-board, during periods of 3 years.

Years	Kg
1891—1893	9.3 million
1901—1903	27.4 „
1911—1913	51.1 „
1914—1916	44.5 „
1917	17.7 „
1918	7.2 „

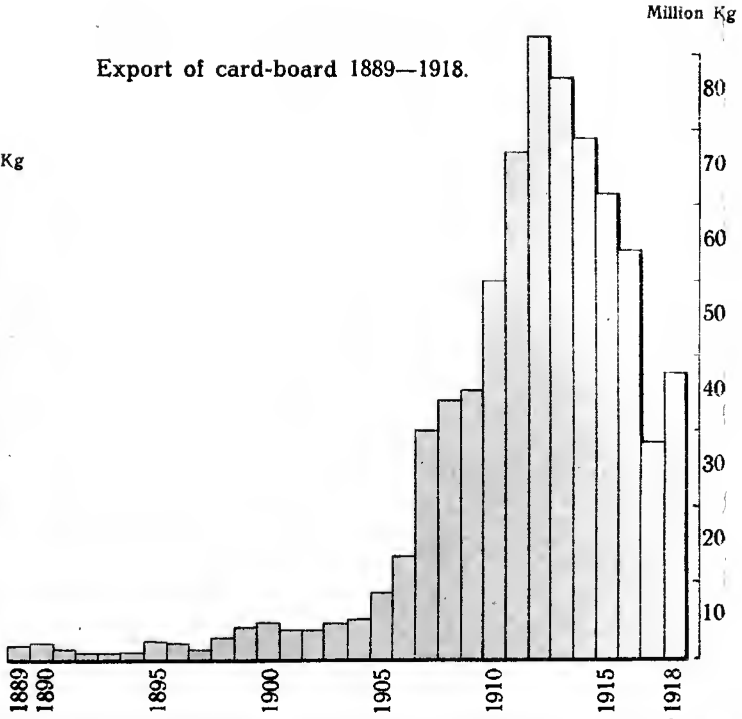
Average export of paper, during periods of 3 years.

Years	Kg
1891—1893	14.6 million
1901—1903	39.6 „
1911—1913	132.9 „
1914—1916	147.3 „
1917	114.6 „
1918	23.8 „

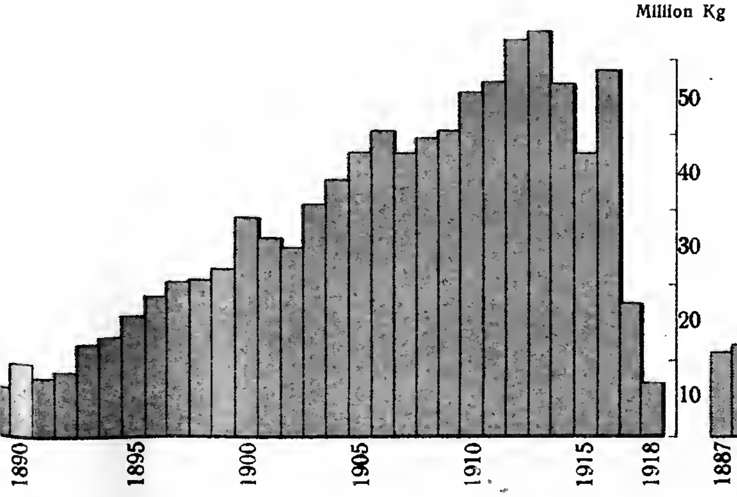
Export of mechanical pulp 1887—1918.



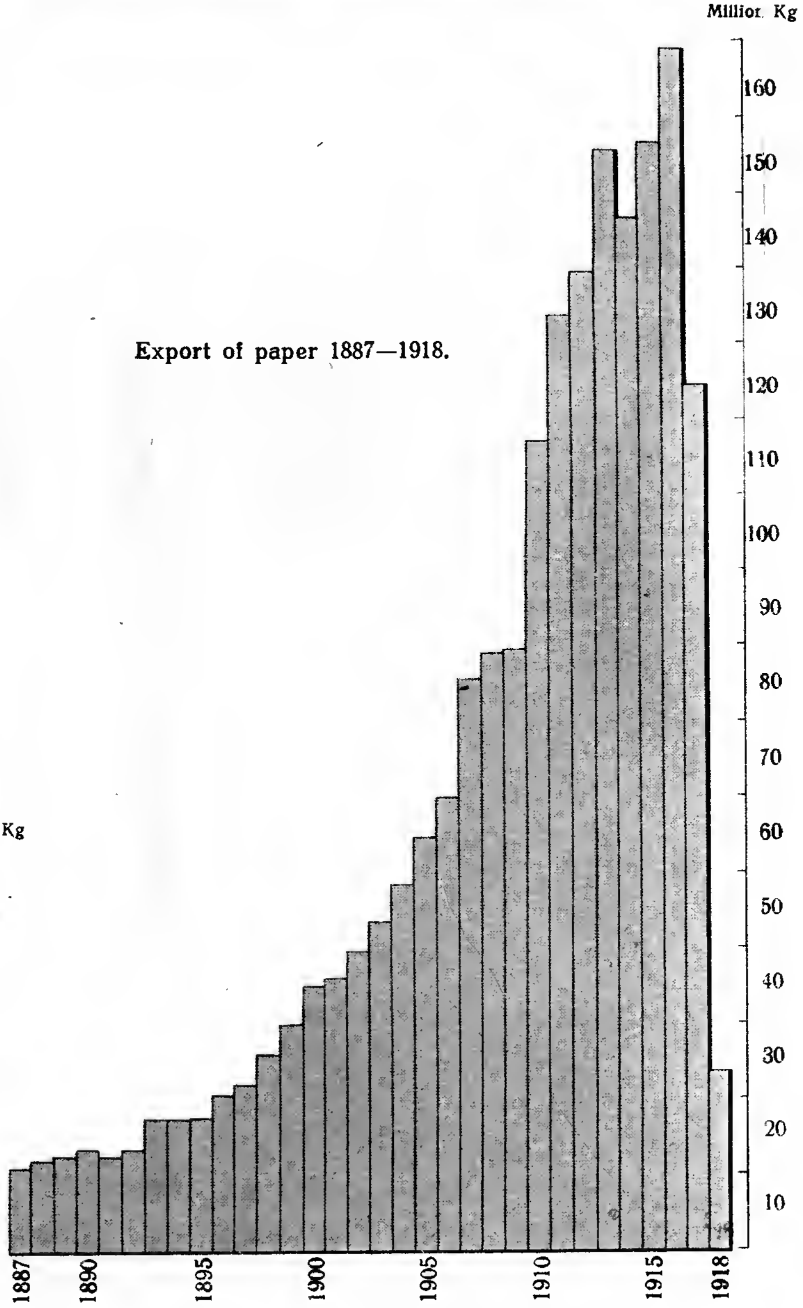
Export of card-board 1889—1918.



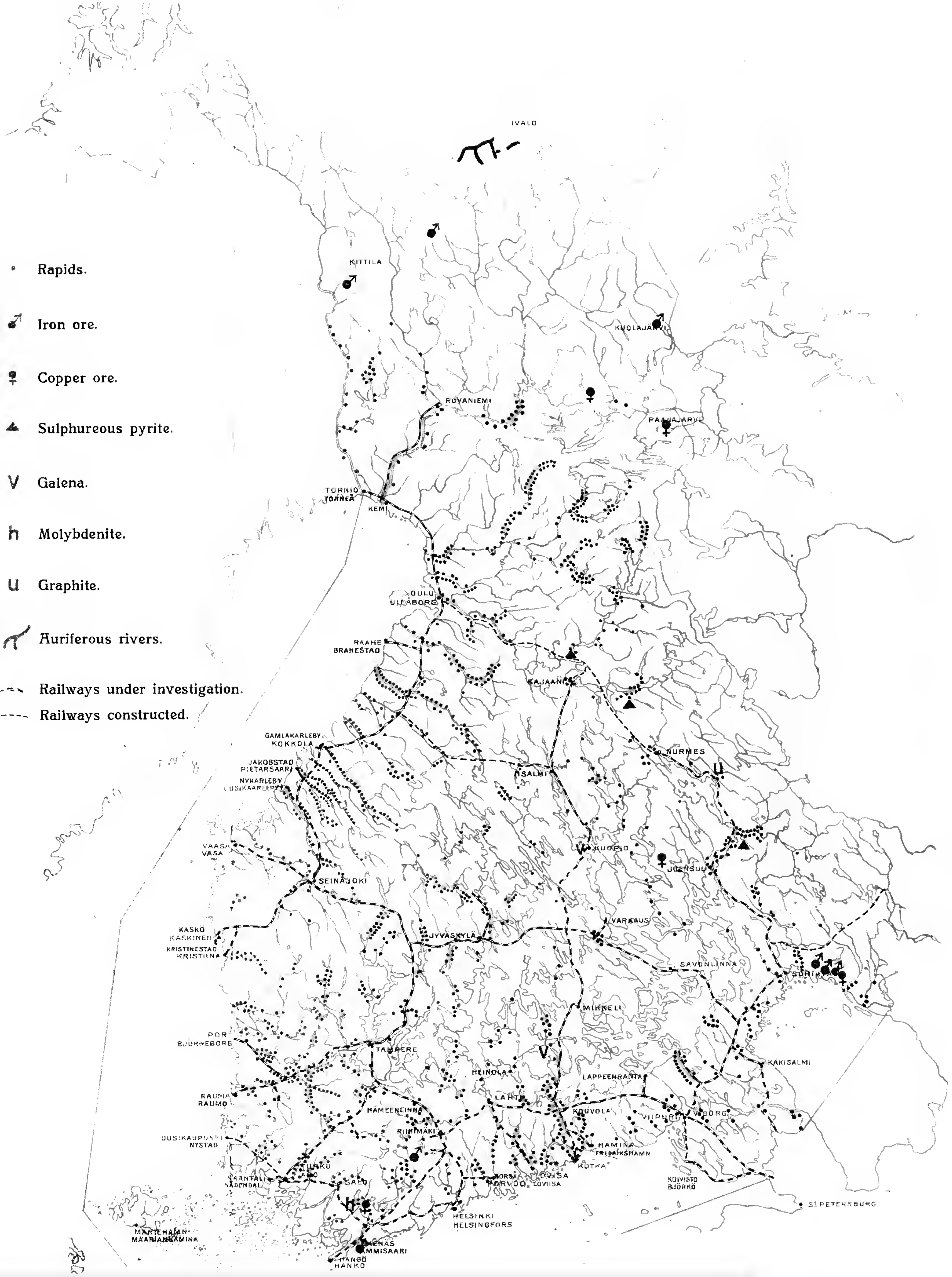
Export of chemical pulp 1887—1918.



Export of paper 1887—1918.



Map of the Rapids and Mineral Deposits.



Map of Rapids and Mineral Deposits.

Hydraulic power of the most important rapids and rivers.

Rivers	At average low water level	At high water level
Tornionjoki and its tributaries	—	125.605
Kemijoki „ „ „	530.667	2.268.241
Iijoki „ „ „	—	2.017.424
Oulunjoki „ „ „	628.099	2.387.209
Siikajoki „ „ „	—	303.543
Pyhäjoki „ „ „	—	271.682
Uudenkaarlepyynjoki „ „	14.739	176.254
Kyrönjoki „ „ „	12.065	102.076
Kokemäenjoki „ „ „	177.317	380.835
Kyminjoki „ „ „	270.786	428.229
Vuoksi „ „ „	516.532	602.139

Iron ores obtained in Finland.

	Iron ore obtained from lakes and marshes.	Iron ore from mines.	Average import of iron ore during periods of 3 years.	
Years	Tons	Tons	Years	Tons
1861—1863	27.059	4.002	1861—1863	6.698
1871—1873	55.300	682	1871—1873	18.608
1881—1883	35.900	121	1881—1883	16.574
1891—1893	57.078	3.343	1891—1893	12.365
1901—1903	45.009	20.233	1901—1903	18.165
1911—1913	3.398	—	1911—1913	17.128
1914	3.749	3.130	1914	7.673
1915	3.583	—	1915	8.292
1916	4.000	—	1916	7.967

Iron and steel productions.

Years	Cast-iron Tons	Iron and steel Tons
1861—1863	11.307	9.767
1871—1873	21.487	14.750
1881—1883	20.706	16.206
1891—1893	22.865	17.829
1901—1903	27.886	15.740
1911—1913	9.262	34.753
1914	9.931	55.509
1915	7.836	69.690
1916	9.098	57.558

Average import of cast-iron during periods of 3 years.

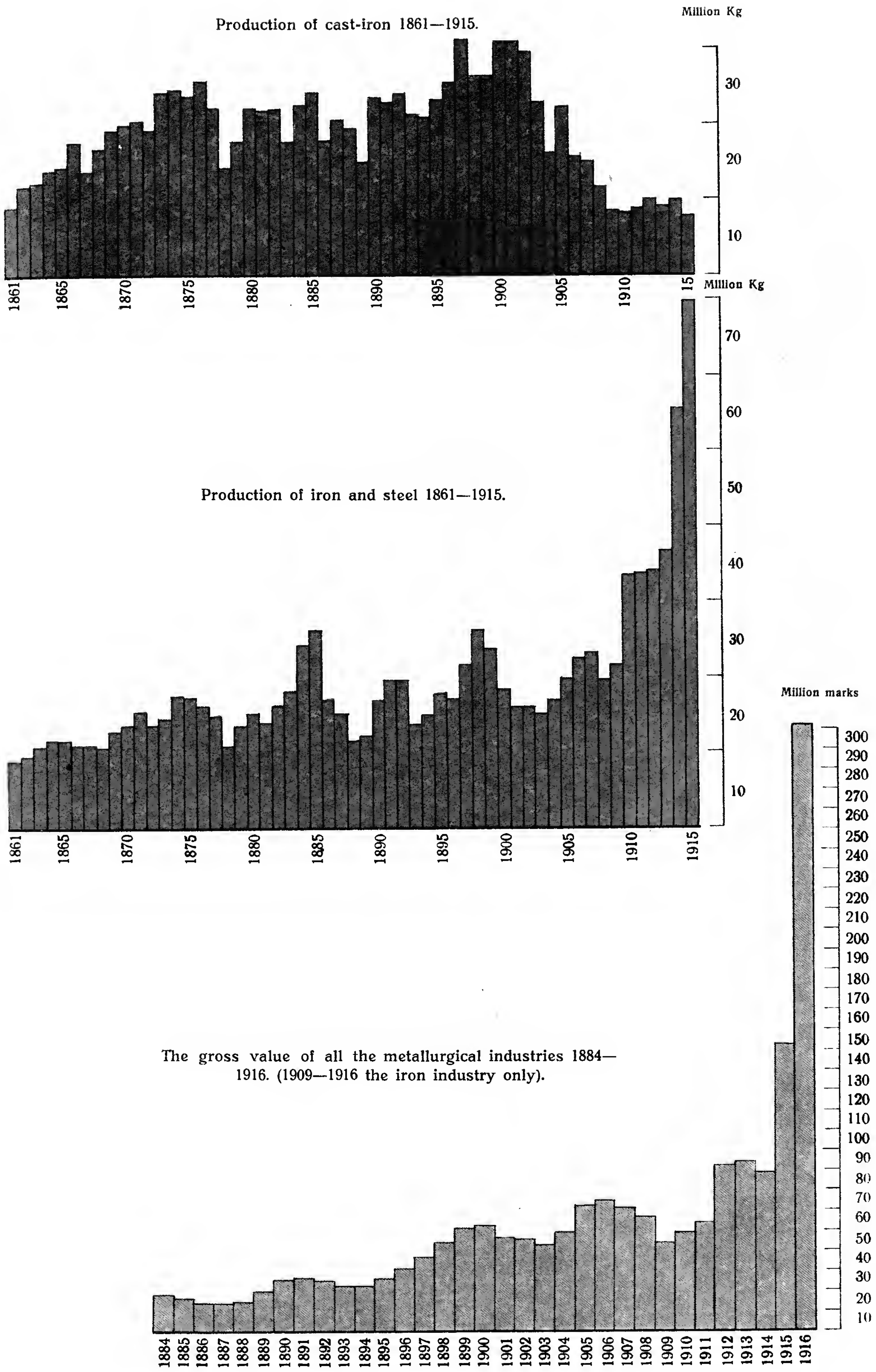
Years	Tons
1861—1863	3.902
1871—1873	6.215
1881—1883	10.195
1891—1893	9.367
1901—1903	8.928
1911—1913	20.542
1914	12.504
1915	16.157
1916	15.818

Copper and tin productions.

Years	Copper Tons	Tin Tons
1861—1863	158	46
1871—1873	19	5
1881—1883	117	15
1891—1893	342	9
1901—1903	237	4
1911—1913	8	—
1914	161	—
1915	169	—
1916	176	—

Gross value of the entire metallurgical industry.

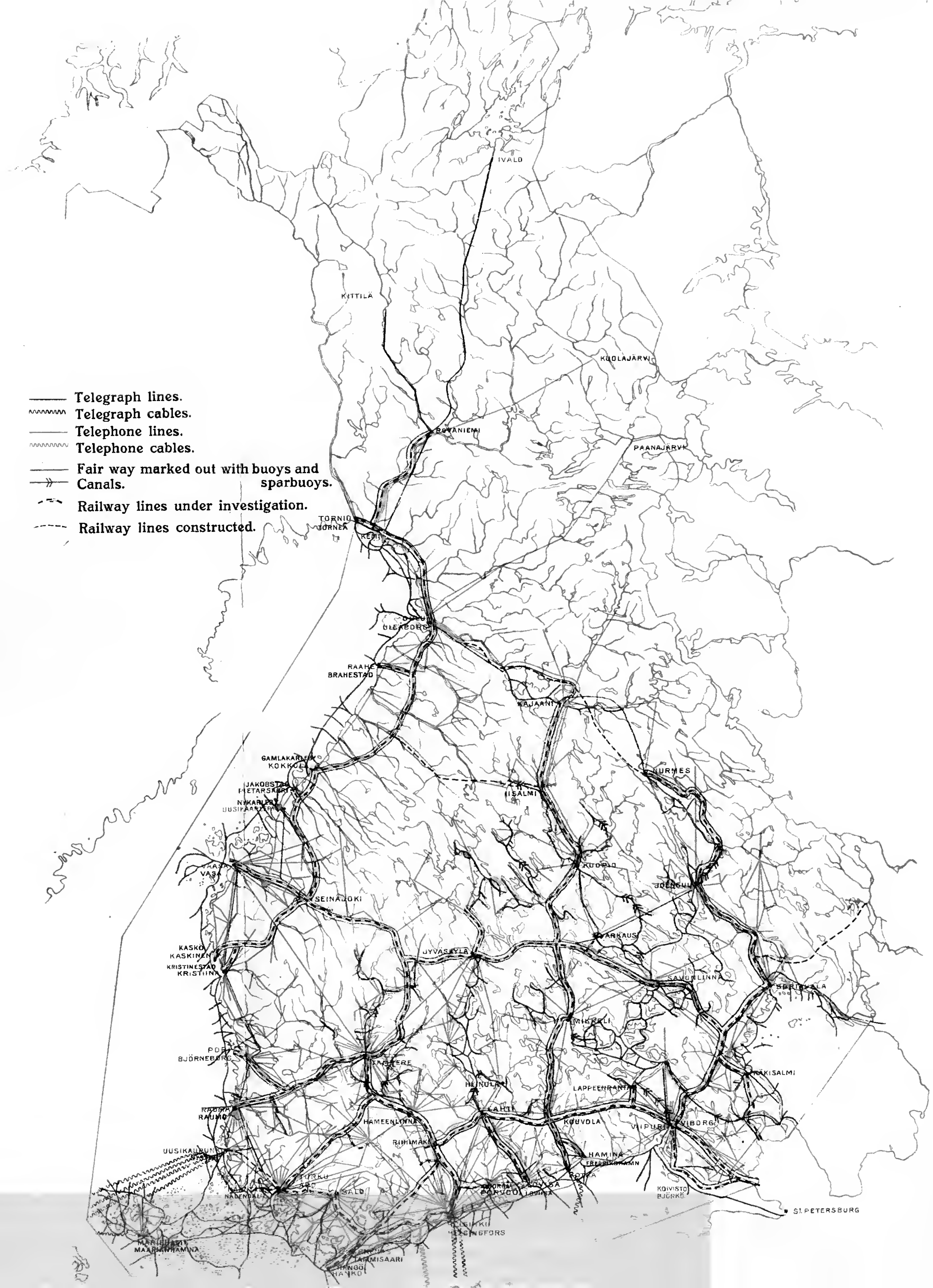
Years	Marks
1886—1890	18.1 million
1891—1895	24.8 „
1896—1900	43.4 „
1901—1905	49.2 „
1906—1910	55.4 „
1911—1915	83.3 „
1916	301.5 „


Production of cast-iron 1861—1915.

Production of iron and steel 1861—1915.

The gross value of all the metallurgical industries 1884—1916. (1909—1916 the iron industry only).

Map of Ways and Communications.



Map of Ways and Communications.

Length of the Railways:
4.318 km.

Length of the river ways:
fair way marked out with buoys and sparbuoys 3.600 km.
fair way dredged for boats 2.900 „
principal ways for timber floating 10.000 „

Length of telegraph lines:
23.656 km.

Length of telephones (the map shows only the principal lines):
116.235 km.

Length of roads:
high roads 31.000 km.
parish roads 20.000

Number of postal stations:
2.527 stations.

The railways and river systems form an extensive net-work embracing the whole country and penetrating even into the remote forest regions. The same applies to the telephone and telegraph service. Compare maps, of forests, and rapids.

Average transport of goods by rail (State and private) during periods of 5 years.

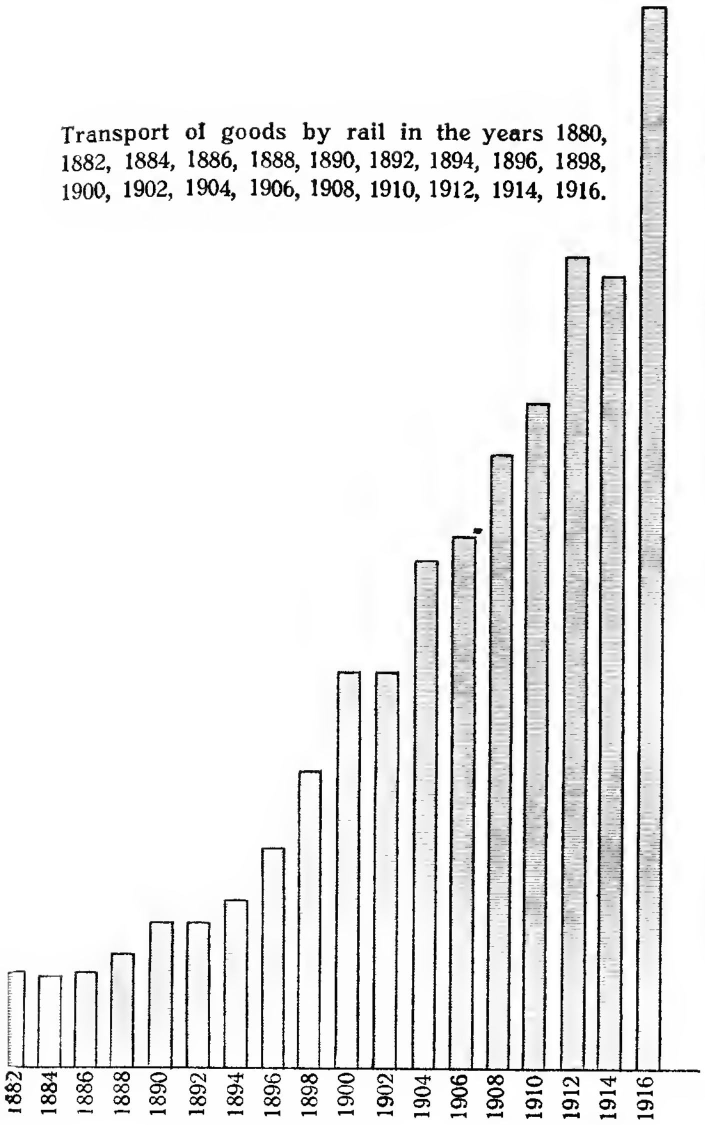
Years	Tons
1881—1885	593.000
1886—1890	784.000
1891—1895	1.106.000
1896—1900	2.030.000
1901—1905	2.988.000
1906—1910	4.064.000
1911—1915	5.490.000
1916	7.045.000

Average number of vessels passing through the canals during periods of 5 years.

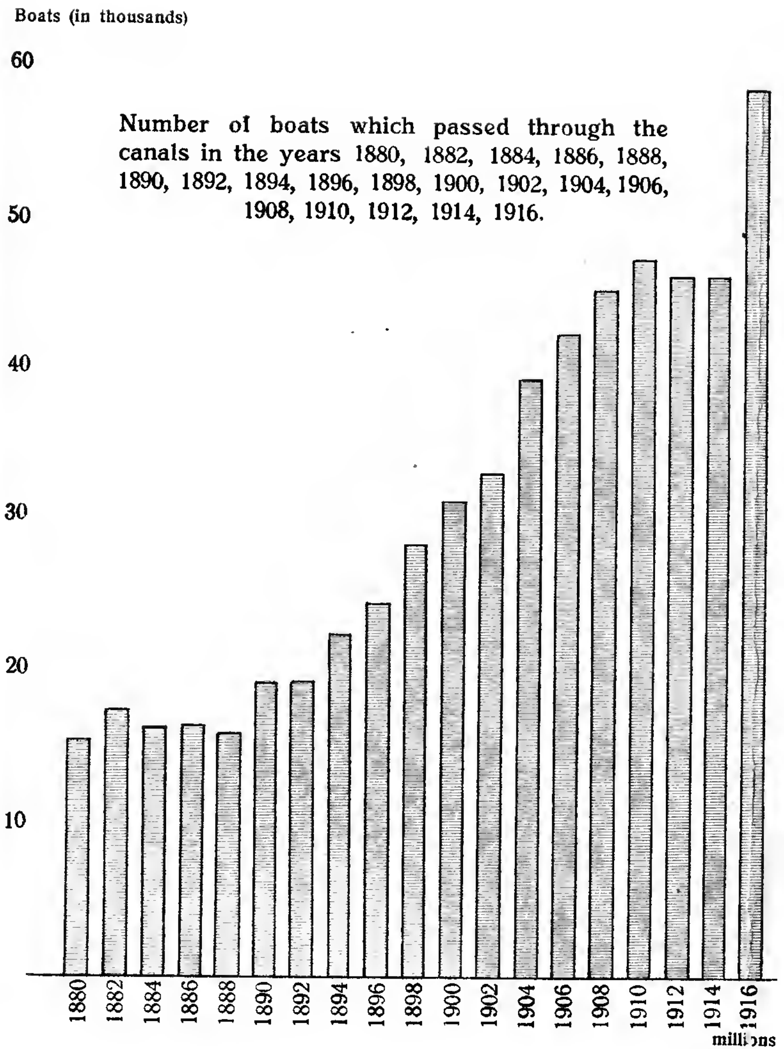
Years	Number of boats
1881—1885	16.701
1886—1890	17.560
1891—1895	21.019
1896—1900	28.458
1901—1905	36.218
1906—1910	45.014
1911—1915	48.477
1916	58.703

Activity of the postal service during periods of 5 years.

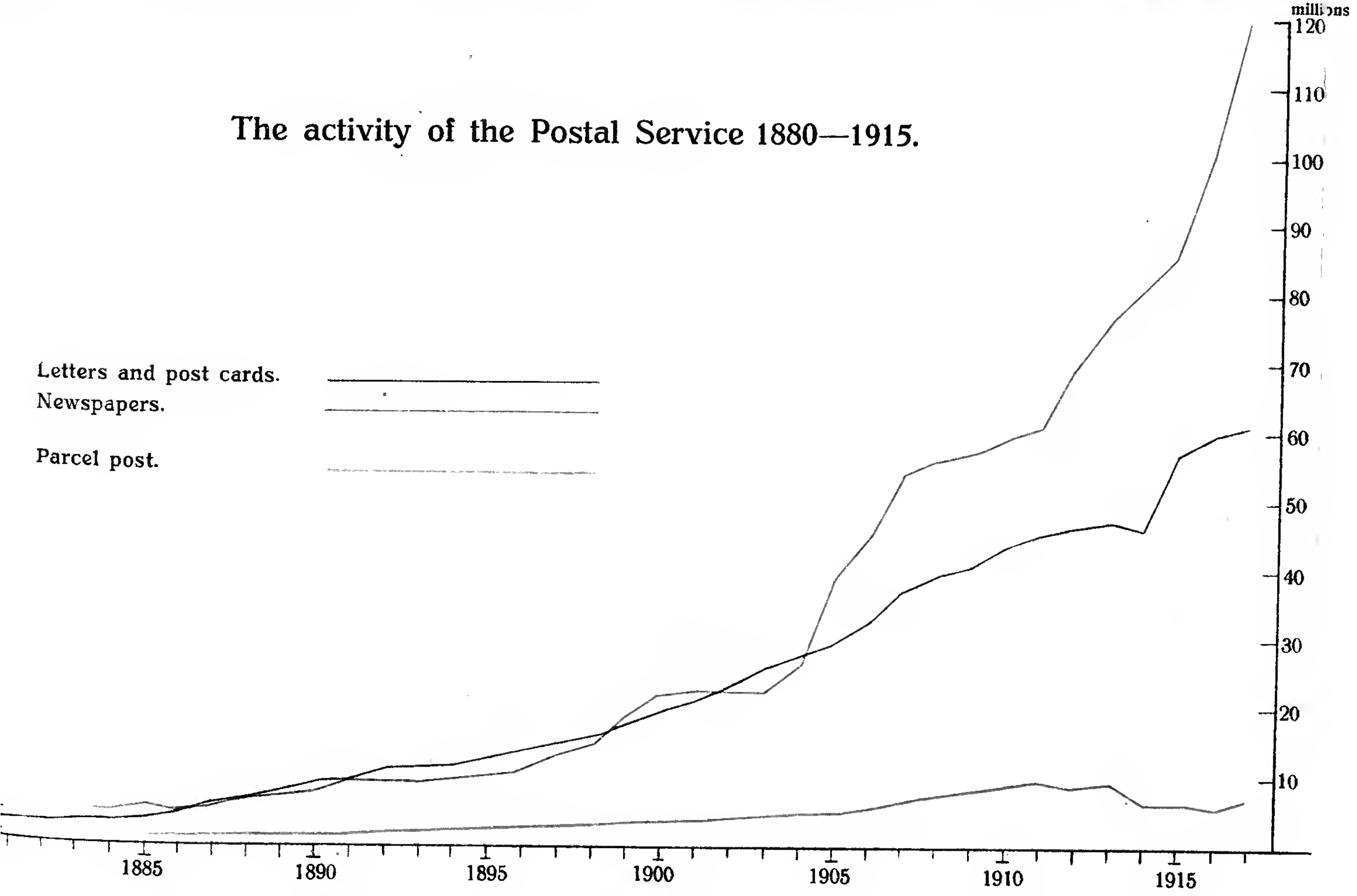
Years	Letters and post cards	Newspapers	Parcel post	Money orders
1881—1885	3.4 million	4.8 million	0.5 million	—
1886—1890	7.0 „	6.4 „	1.1 „	—
1891—1895	11.4 „	9.4 „	1.9 „	—
1896—1900	16.4 „	16.0 „	2.9 „	0.05 million
1901—1905	25.4 „	26.4 „	4.1 „	0.2 „
1906—1910	38.5 „	54.1 „	7.2 „	0.7 „
1911—1915	48.3 „	75.7 „	8.0 „	1.5 „
1916	59.4 „	99.9 „	5.8 „	2.1 „
1917	61.2 „	119.5 „	6.8 „	1.9 „



Transport of goods by rail in the years 1880, 1882, 1884, 1886, 1888, 1890, 1892, 1894, 1896, 1898, 1900, 1902, 1904, 1906, 1908, 1910, 1912, 1914, 1916.

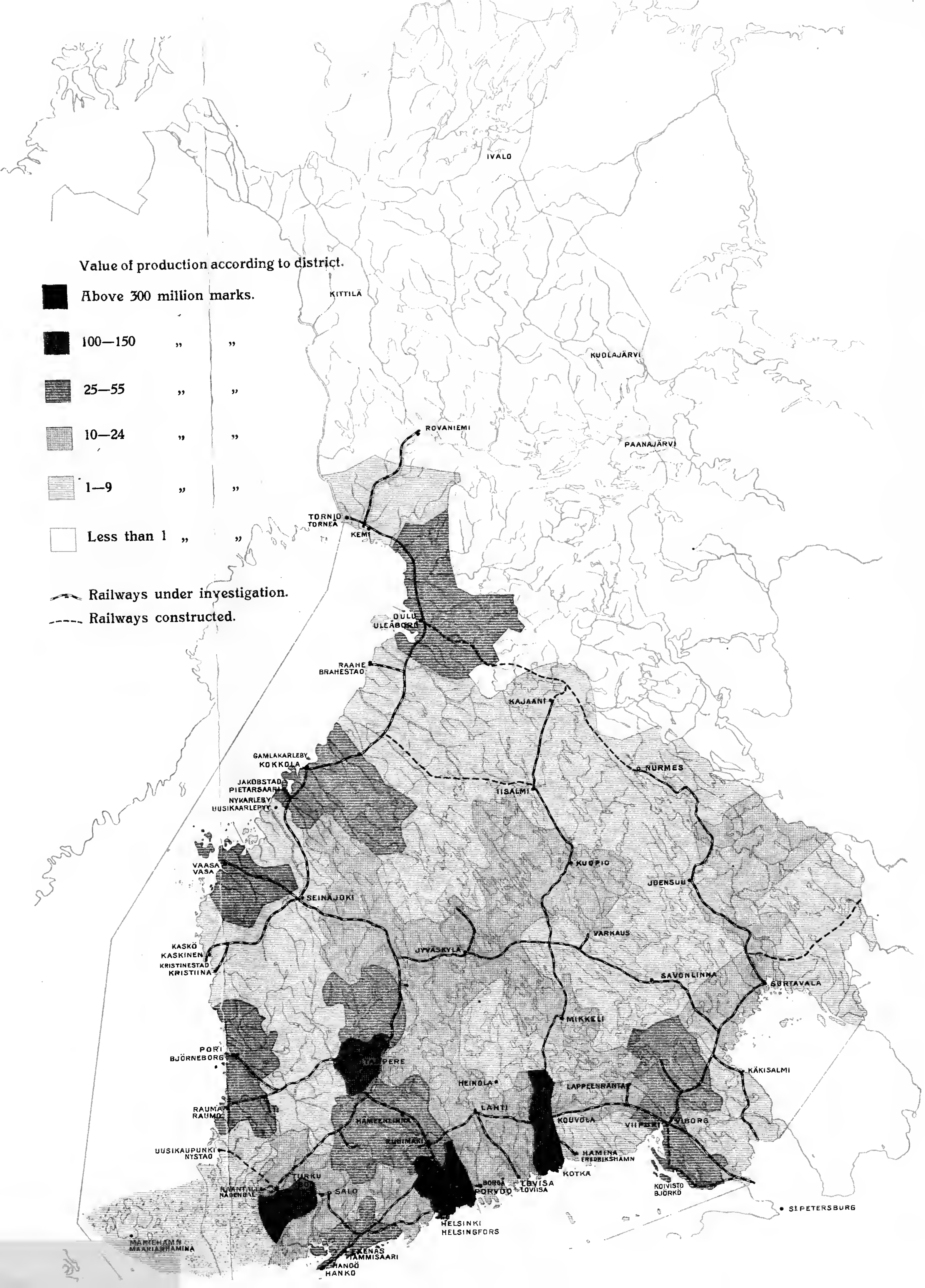


Number of boats which passed through the canals in the years 1880, 1882, 1884, 1886, 1888, 1890, 1892, 1894, 1896, 1898, 1900, 1902, 1904, 1906, 1908, 1910, 1912, 1914, 1916.



The activity of the Postal Service 1880—1915.

Industrial Map.



The increase in the gross value of the Finnish industries during the course of the last years is shown by the following figures.

1911—1913	683.2	million	marks
1914	702.1	"	"
1915	884.0	"	"
1916	1.459.0	"	"

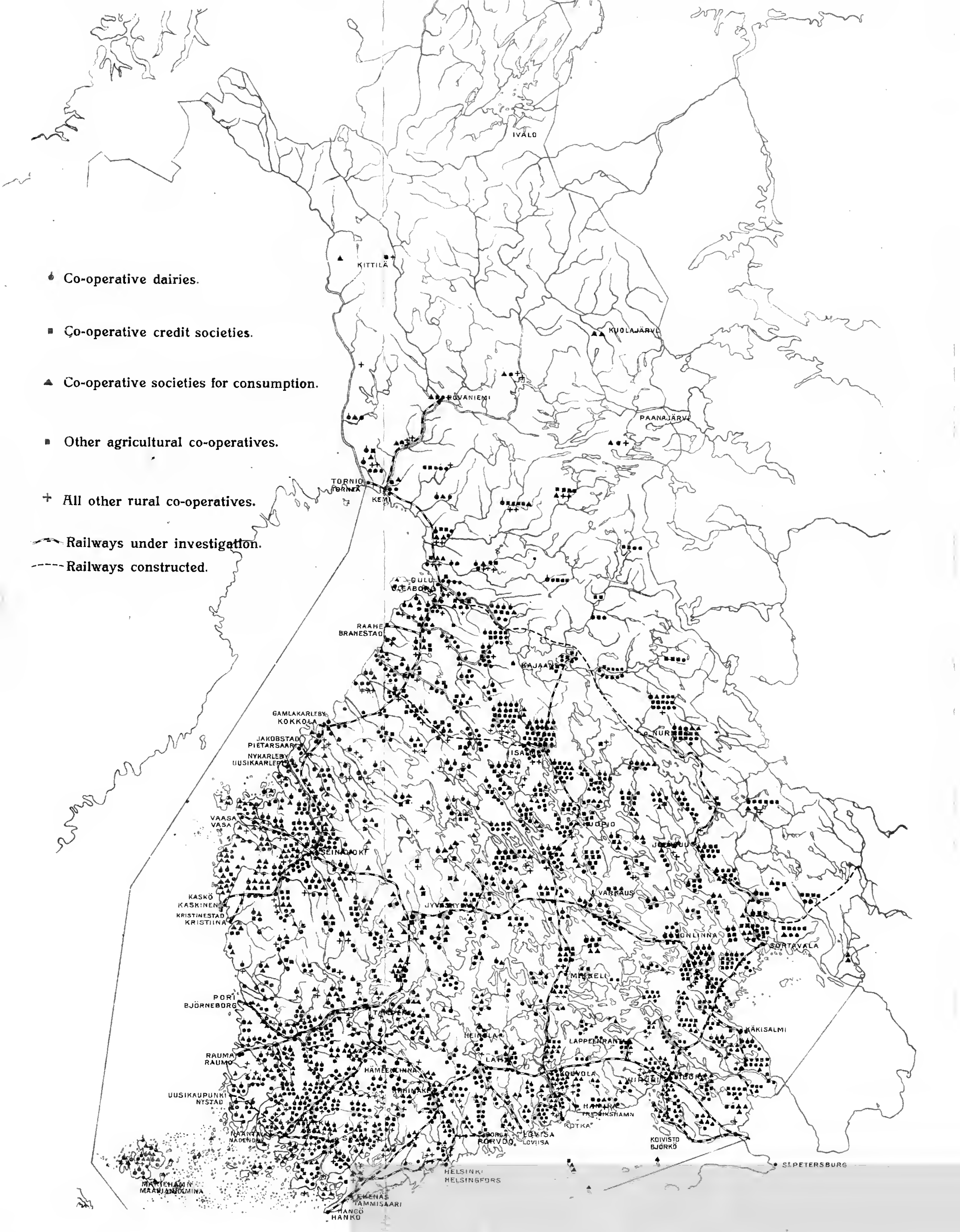
In 1916, 109,900 workmen were employed in industry, and the Horse power of the primary plant (power generators) was 318,629.

Although, strictly speaking, the growth of Finnish industry has only taken place during the three last decades, its origin dates from previous centuries, as a part of the most considerable Finnish industrial establishments were founded in the seventeenth or eighteenth century.

The principal branches of the Finnish industry are:

	Gross value of the production in marks	
	1913	1916
The wood industry	171.2 millions	147.5 millions
Paper industry	101.4 "	283.0 "
Textile industry	94.2 "	168.8 "
Metallurgical industry	84.2 "	301.5 "
Leather industry	30.8 "	84.4 "

Finland owns both one of the largest saw-mills and paper-mills in the world, besides the largest cotton and linen spinning-mills, tobacco factory, and leather factory in northern Europe.



Map of the Agricultural Co-operatives.

Number of agricultural co-operatives working, 31/12 1918.

Co-operative credit societies	614
Co-operative societies for consumption	519
Co-operative dairies	420
Other agricultural co-operatives	638
Other rural co-operative societies	227

Total sales of the Central Co-operative Societies in 1918 and 1919.

	1918	1919
The Rural Banks' Central Credit Institute, Ltd.	13.9 million marks	17.1 million marks
The Hankkija Agricultural Co-operative Wholesale Society	78.3 „ „	156.4 „ „
The Finnish Co-operative Wholesale Society, Ltd. (Neutral)	107.7 „ „	205.0 „ „
The Finnish Farmers' Co-operative Wholesale Society Labor	25.6 „ „	66.6 „ „
The Valio Butter Export Co-operative Society	64.6 „ „	105.0 „ „
The Finnish Co-operative Wholesale Society	14.4 „ „	56.3 „ „

Through the co-operative societies even the small farmers are able to make use of steam and electric agricultural machinery, and the latest labour-saving appliances.

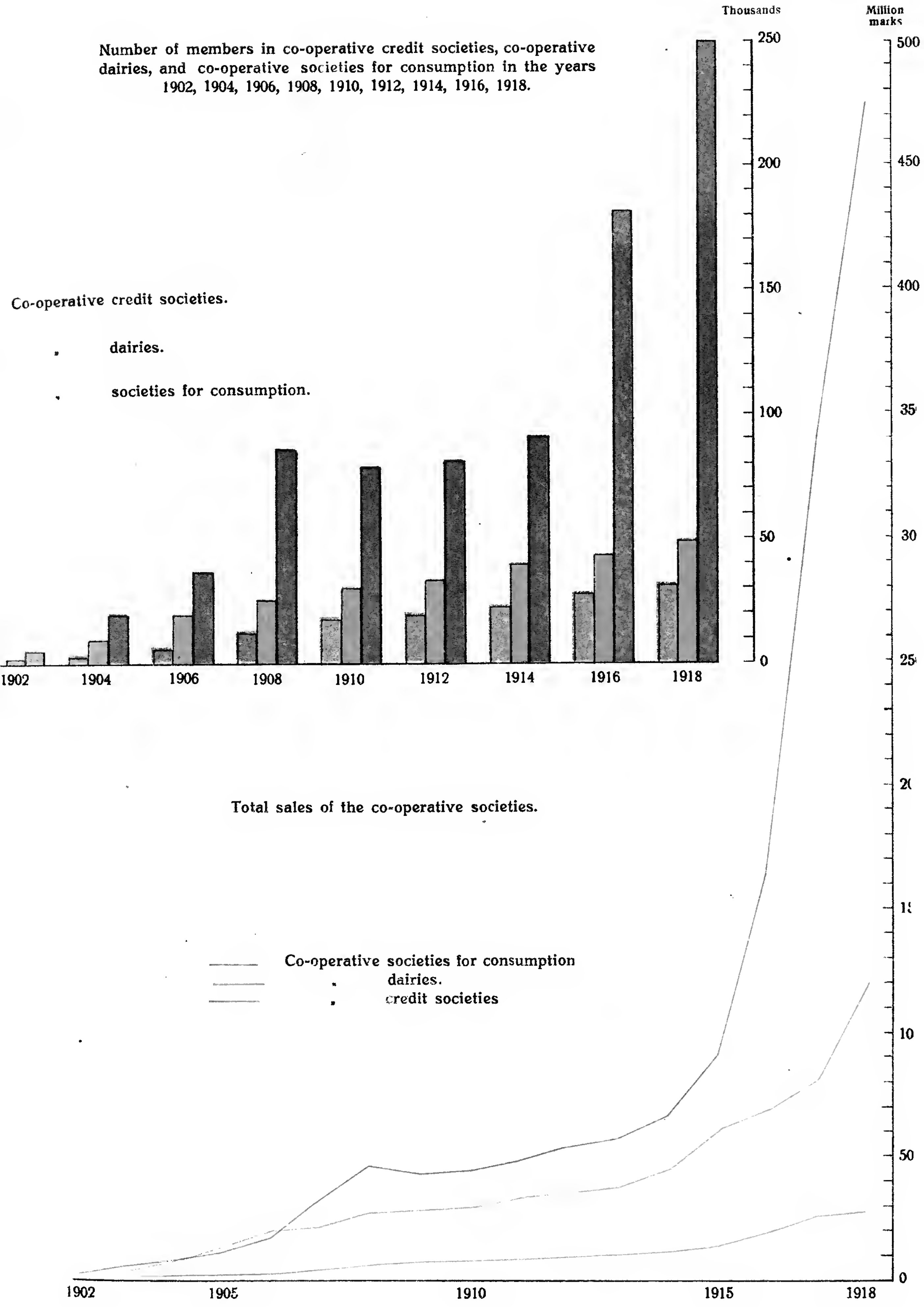
The co-operative societies, pioneers of agricultural progress, have their organizations even in the solitary forest regions, and the distant north.

Number of members in the co-operative societies.

Year	Co-operative credit societies	Co-operative dairies	Co-operative societies for consumption
1902	—	1.886	5.011
1906	5.413	19.234	36.427
1910	17.496	30.058	79.021
1914	22.467	39.342	90.673
1916	27.867	43.035	181.752
1917	28.672	37.795	163.601
1918	30.727	49.000	250.000

Total sales of the co-operative societies.

Year	Co-operative credit societies	Co-operative dairies	Co-operative societies for consumption
1902	—	—	1.5 millions
1906	1.6 millions	19.5 millions	16.2 „
1910	6.6 „	28.4 „	43.6 „
1914	10.0 „	43.6 „	65.3 „
1916	17.5 „	67.6 „	162.6 „
1917	24.3 „	80.0 „	340.2 „
1918	26.0 „	118.0 „	475.0 „

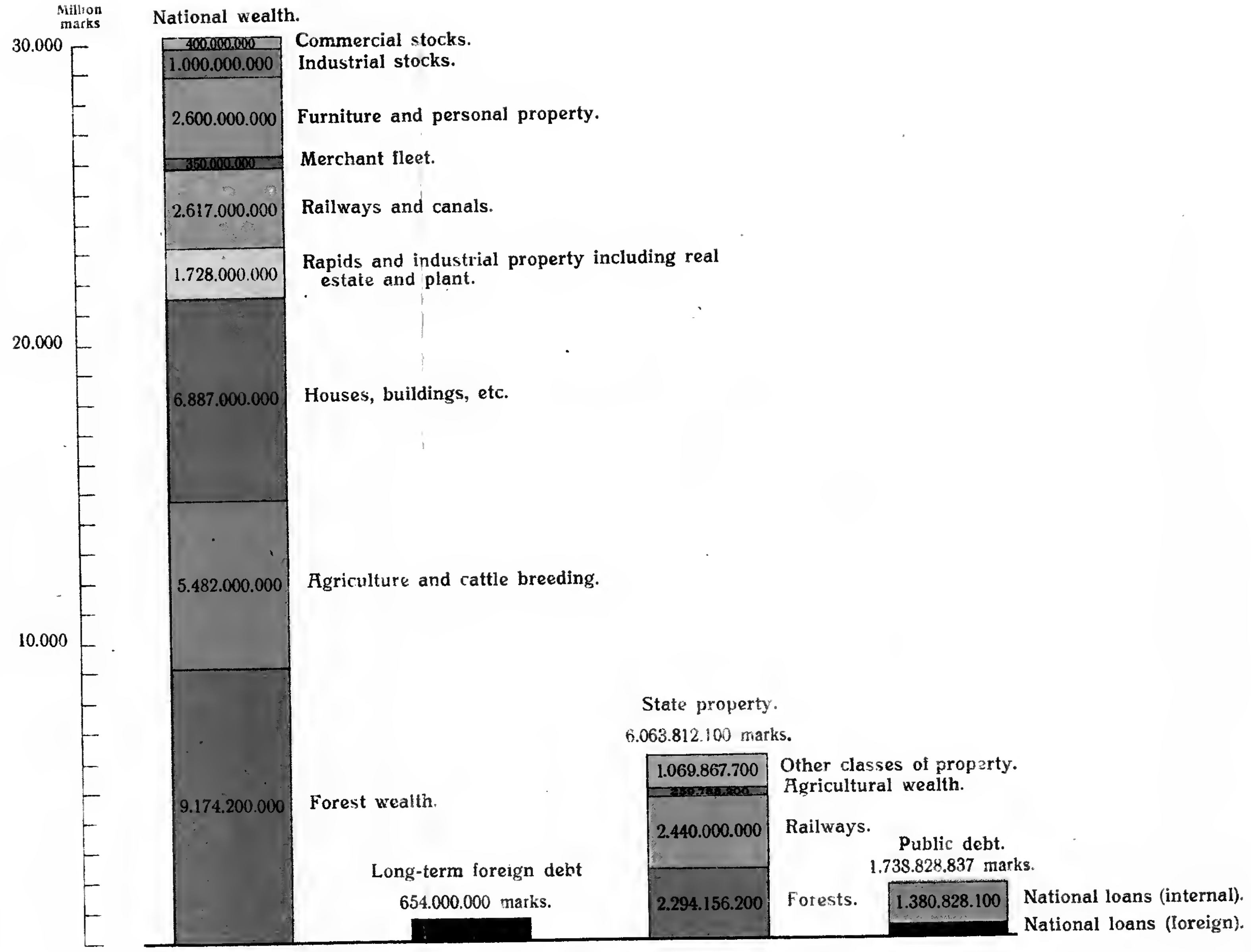


Number of members in co-operative credit societies, co-operative dairies, and co-operative societies for consumption in the years 1902, 1904, 1906, 1908, 1910, 1912, 1914, 1916, 1918.

Total sales of the co-operative societies.

National Wealth of Finland.

Foreign loans are equivalent to 2.16 % of the national wealth.



The calculations estimating the national wealth of Finland have been made with the greatest care. In reality the values are much greater than those actually shown.

For instance, in this estimate many categories have been entirely omitted, as roads, telegraph & telephone service, fortresses, army stocks, and mineral wealth.

TEXT AND ILLUSTRATIONS

Seal of Olavi Kirves, nobleman (XV century).

Seal of the cloister of the Dominican Friars of Turku (Åbo) (XV century).

Seal of Waldemar, Duke of Finland (beginning of XIV century).

Seal of John I and of Maunu I, Bishops (XIII century). Maunu first Finnish born Bishop.

Seal of Peder Karpalainen, nobleman (XV century).

Finland is situated in Northern Europe, on the shores of the Baltic; her adjacent countries are Sweden in the west and Russia in the east.

The colonization of Finland may be traced back to the first centuries A. D. Two separate nationalities have gone to the formation of its people, i. e. the Finns and the Swedes. In the course of time these nationalities have however merged into one nation. The archipelago and the coast were populated first, and from there the migration spread gradually upwards along the rivers and the water systems, conquering by hard struggle a wild land, covered with vast virgin forests and immense swamps.

The Baltic Sea embraces Finland with its two long bays, the Gulf of Finland and the Gulf of Bothnia, and these have always been the means of communication with the western world. Thus commerce and wars have, from remote ages, been the cause of animated relations between the Finns and the peoples of the West dwelling on the coasts of the Baltic. The Swedes, Danes and Germans made commercial expeditions to Finland, and the Finns in their turn went to the coasts of the Baltic. The old itineraries of the Hanse merchants and the Danish captains mention the existence of several commercial ports on the Finnish coasts.

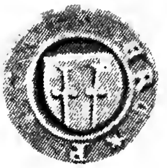
The Finns were converted to Christianity by the Swedes, who for this purpose undertook crusades in the years 1157, 1249 and 1293. At the same time Finland was united politically to Sweden. As the Finns however at this epoch had attained almost the same degree of culture as the Swedes, the union with

Seal of Olavi Maununpoika, Bishop of Finland (XV century). Olavi Maununpoika studied at the University of Paris, was Master of Arts and Bachelor of Theology.

Seal of Maunu Särkilaks, Bishop of Finland (XV century). M. S:laks was educated at the University of Paris, and was awarded for his scholarship the rank of Count Palatin by the Emperor Frederick III.

Seal of Lauri Suurpää, Bishop of Finland (commencement of XVI century). L. S:pää studied also at the University of Paris, and attained the degree of Master of Arts.

Seal of Arvid Kurki, Bishop of Finland (commencement of XVI century). A. Kurki studied at the University of Paris, and attained the degree of Master of Arts.



Seal of Erik Puraanpoika, nobleman (XIV century).

Seal of Jöns Inkonen, nobleman (beginning of XV century).

Seal of Niilo Olavinpoika Tavast (XV century). Knight of an old noble family.

Seal of Nisse Karvala, nobleman (XV century).

Seal of Niklas Kurki, nobleman (XV century). Knight and Councillor of State.

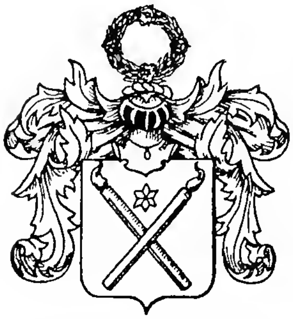
Seal of Olavi Matinpoika, nobleman (XIV century), the first of the famous Finnish family of Horn.

Sweden in no way implied the subjugation of an inferior nation. There was no political distinction between Finns and Swedes. From this early period, and parallel with an analogous phenomenon which showed itself in Sweden, the principal families of the heathen age became the originators of a native nobility, and the local administration was entrusted to Finlanders. Although the first Bishops of Finland were English and Swedish, the episcopal seat of the country was occupied from 1291 by a Finn. In the year 1362 the first fundamental law of Finland was established, giving the people the right to take part in the election of the kings of Sweden-Finland. The geographical position of the country also contributed to its distinction, and an independent national existence was fully assured it.

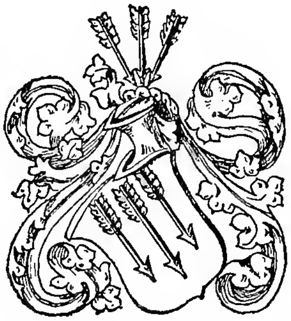
The union of Finland and Sweden under the same sceptre brought both countries considerable advantages. Their internal disputes once settled, it enabled them to unite their strength against Russia, who threatened them from the east. At the same time Finland was being more and more strongly drawn into and held within the domain of western civilization. This political and spiritual union of Finland with Sweden lasted nearly six hundred years.

The Finnish people had during the process of colonization not only to surmount all the difficulties of a wild and uncultivated country, but were also forced, for several centuries, repeatedly to contend against the swarms advancing from the east, in order to maintain their culture newly won.

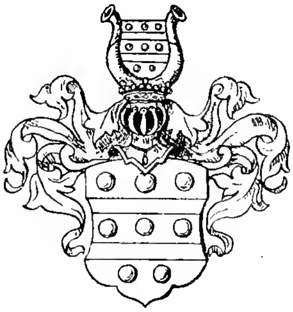
The Finlanders formed as it were a wall of defence against the Russians, and in recognition of this service, John III, king of Sweden and Finland, in 1581 raised Finland to a Grand Duchy. It was also at this time that Finland received her coat of arms. The present Finnish-Russian frontier was established, some years later, by the peace treaty of Stolbowa in 1617.



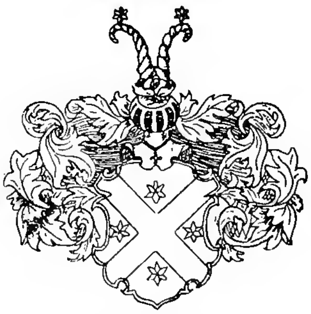
Arms of the noble family of Agricola (XVI century). Mikael Agricola Bishop of Finland, translated the Bible into Finnish in the middle of the XVI century.



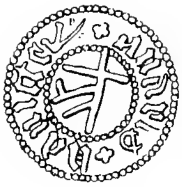
Arms of the noble family of Monikkala (XVI century).



Coat of arms of the Baronial family Fleming. The most well known member of the family, Klas Fleming, made Baron in 1569. He was High Admiral of the Realm in 1588, Commander-in-chief in 1591, and in 1594 Lord High Constable of the Realm.



Coat of arms of the family of Creutz. An ancient Finnish family. Created Baron in 1654, Count in 1719. Gustaf Philip Creutz was appointed in 1763 Swedish ambassador in Spain and some years later in Paris. Later on he became Councillor of State and belonged to Gustaf III of Sweden's friends.



Seals of the commoners of Turku (Åbo) in the middle ages.

Seal of Nisse Laitinen, commoner (XV century).

Seal of Olavi Silta, commoner (XV century).

Seal of Andris Kariste, commoner (XV century).

Seal of Ragvald Suurpää, commoner (XV century).

Seal of Olavi Vitikka, commoner (XV century).

Seal of Mikael Lappalainen, alderman (XV century).

However, on account of the thinness of the population, the eastern enemy succeeded many times in penetrating deep into the country, devastating again and again the fruits of good labour. Perhaps the darkest period in the history of Finland was the first two decades of the eighteenth century, when the troops of the Czar Peter the Great — while the Finnish army was taking part in the wars of Charles XII in distant lands — occupied the defenceless country, and held it under their bloody tyranny for twenty years, destroying and devastating in the cruelest way, by fire and sword. However these wild hordes were not satisfied with merely plundering and burning, but numbers of women and children were put to death in the most horrible manner. Masses of people were dragged to the shores of the river Neva, to perish in laying the foundations for the new Russian capital St. Petersburg. This reign of terror, which was brought to an end by the conclusion of peace at Uusikaupunki (Nystad) in the year 1721, has been styled by the people of Finland »the time of great hate».

As a result of the war of 1808—1809, Finland was forced to unite itself to Russia. At the assembled Diet of the Estates of Finland at Borgå (Porvoo), the Emperor of Russia Alexander I signed on the 27 March 1809 a decree, guaranteeing the constitution of Finland, and conceived in the following terms:

»We Alexander by the Grace of God Emperor and Autocrat of all the Russias etc; Grand Duke of Finland etc, etc, proclaim that: The will of the All Mighty has given into Our possession the Grand Duchy of Finland, and therefore We desire by this to confirm and sanction the religion and fundamental laws of the country, as well as the rights and privileges in each particular order in the Grand Duchy, and all that her inhabitants in general, both high and low, have enjoyed up to now in virtue of the

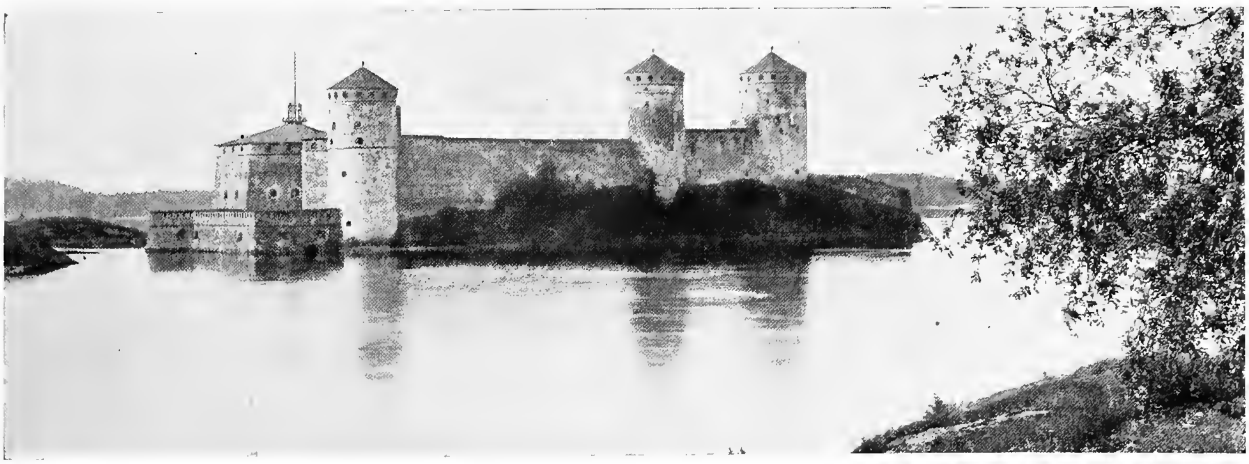


Fig. 1. The old fortress »Olavinlinna» (Olofsborg) in the interior of the country, built in the XV century.

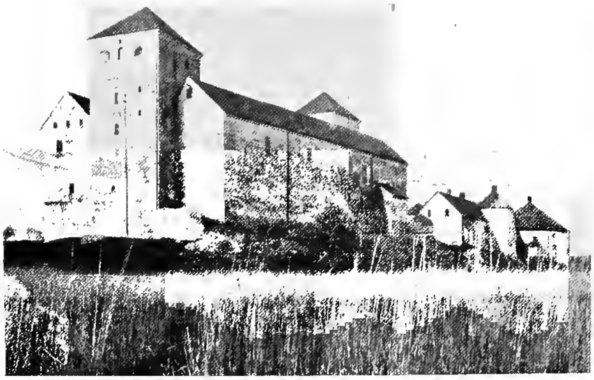


Fig. 2. The old fortress of Turku (Åbo Slott) on the south-west coast, built in the XII century.

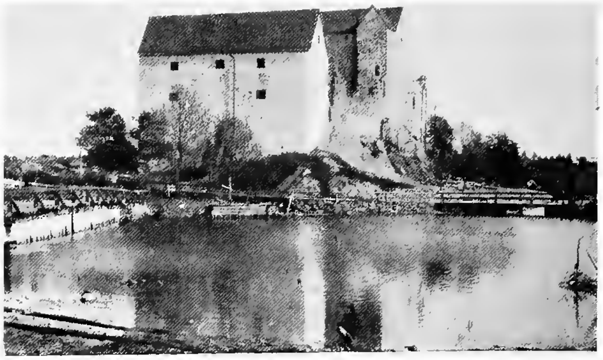


Fig. 3. The old fortress of Kastelholm on the south-west coast, built in the XIV century.

constitution. We promise to maintain all these advantages and laws in force without alteration or change.»

The Estates of Finland, assembled in the cathedral, took the oath of fidelity on the 29 March 1809. After that Alexander I was proclaimed Grand Duke of Finland. By the treaty of peace in Hamina (Fredrikshamn) on the 17 September 1809, the king of Sweden renounced all rights to Finland, acknowledging the treaty concluded by Alexander I and the Estates of Finland as an accomplished fact.

Fortunately the common throne of the Russian Empire and the Grand Duchy of Finland was successively occupied by three rulers, who were both willing and able to protect the legal rights of Finland against the pan-slavistic aspirations for the oppression of the country. During this period Finland made, by her own efforts, good and rapid progress both materially and intellectually.

However, towards the end of the nineteenth century, Russia began to insolently violate the rights of Finland, and at the beginning of the twentieth century, she undertook by systematic violence to completely crush the economic and intellectual culture of Finland. Endeavours were made to entirely close

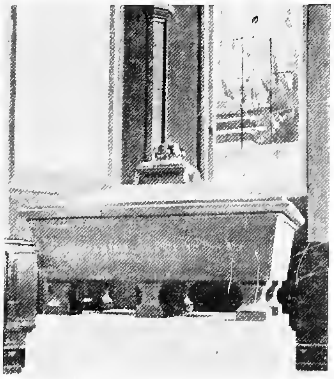


Fig. 4 The sarcophagus of Queen Catherine, consort of Erik XIV of Sweden-Finland, in a chapel of the Cathedral of Turku (Åbo)

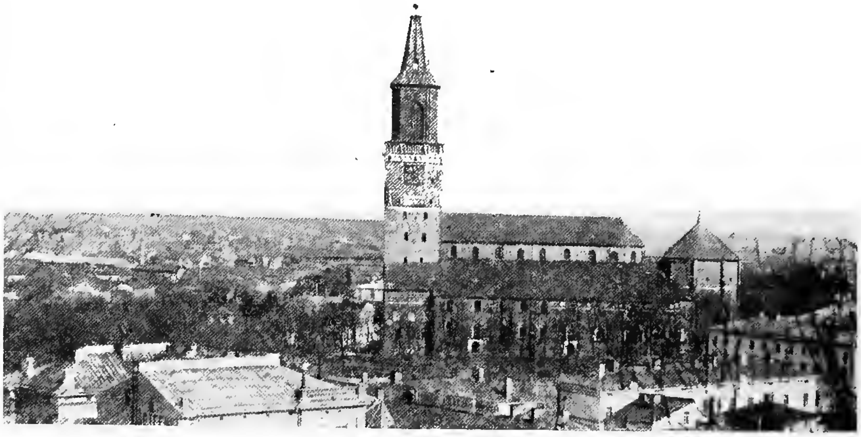


Fig. 5 The Cathedral in Turku (Åbo), built in the XIII century. The upper part of the tower was several times damaged by the Russian enemy armies. In restoration it has lost much of its former beauty.

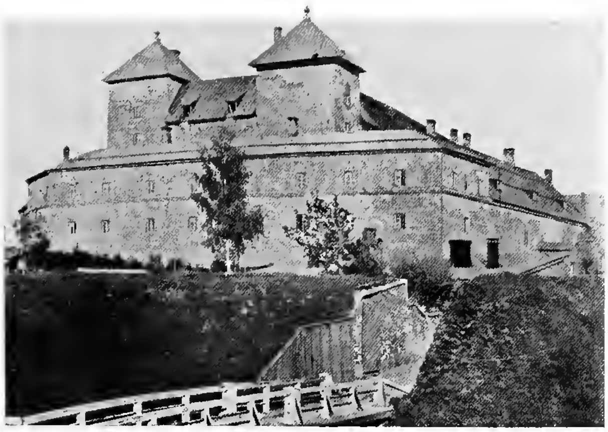


Fig. 6. The old fortress of Hämeenlinna (Tavastehus) in the interior of the country, built in the XIII century.

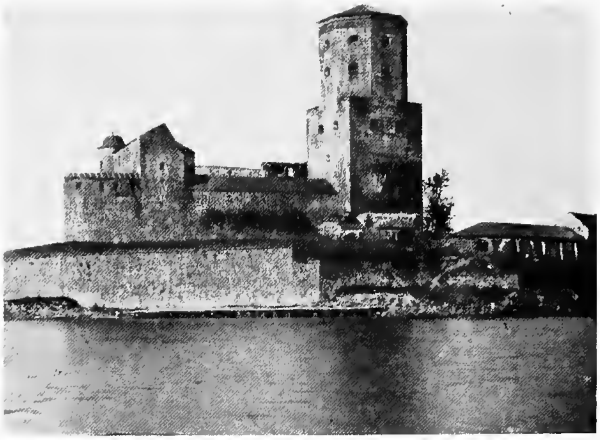


Fig. 7. The old fortress of Viipuri (Viborg) on the south=east coast, built in the XIII century.

the Russian markets to Finnish industrial products, by introducing high protective tariffs, while Finland had no right to guard her interests by levying custom duties on Russian imports. At the same time efforts were made to compel Finland, against her will, to buy her imports from Russia. To this effect were imposed, by means of illegal statutes, high protective tariffs on grain, one of Finland's main imports, unless it was imported from Russia. In addition, to this, plans were made for russifying the school system and the civil service, and secret agitation was organized especially in country places, in order to stir up the working people against the upper classes. The sense of security, guaranteed by the laws and legislation, which had prevailed in the country from time immemorial, was shaken by illegal house examinations, arrests and deportations. Judges, magistrates and other state officials, who considered the law of the land before the despotic commands of a Emperor=Grand Duke, who had broken his word, or a Russian Duma, which had no legal authority to interfere in Finnish affairs, were thrown into the prisons of St. Petersburg. Thus the East attempted to obliterate the bit of Western civilization which had come within the reach of its clutches.

The work of destruction entered upon by the Russian Government and Duma was at last frustrated

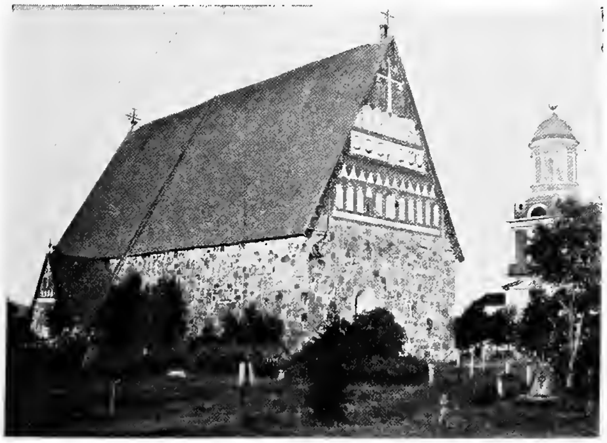


Fig. 8. The parish church of Hollola, in the interior of the country, built in the middle ages.

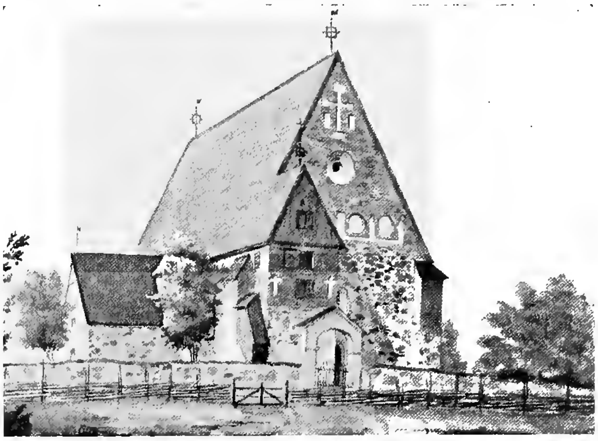


Fig. 9. The parish church of Räntämäki (St. Marie) on the south=west coast of Finland, built in the XII century.

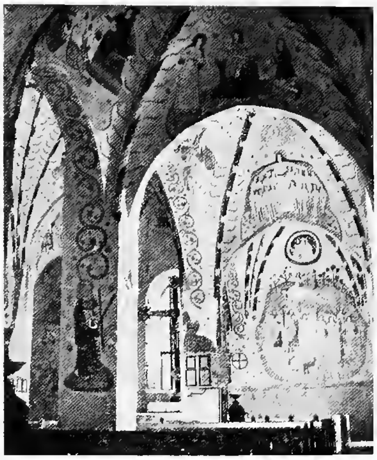


Fig. 10. Interior of the parish church of Lohja (Lojo).

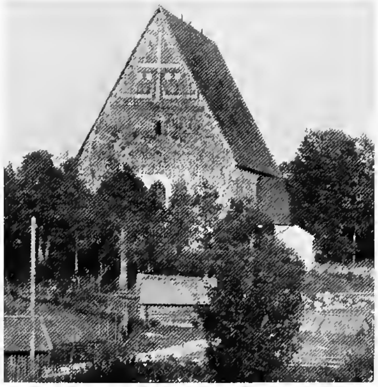


Fig. 11. The parish church of Lohja (Lojo), built in the XIV century.

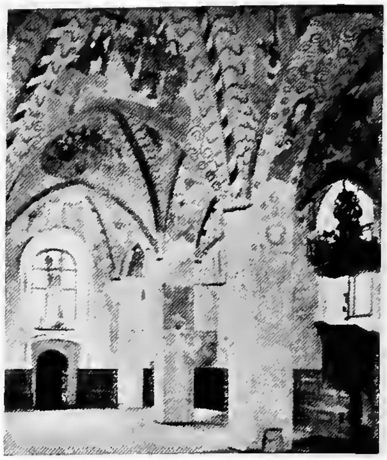


Fig. 12. Interior of a church of the middle ages, in the heart of the country.

by the revolution, which broke out in Russia in the spring of 1917. This revolution, however, at the same time brought to the surface the basest elements of the Russian people. The Russian troops quartered in Finland very soon became saturated with communistic and anarchical doctrines and began to spread the contagion in this country. The Russian troops broke open the prisons and the houses of correction, provided the released criminals and the mob in the streets with rifles and other munitions, and tried in every way, by enkindling the passions of the working classes, to bring about a revolution. In order to further encourage the revolutionary instincts of the people, the Russian sailors raided some of the large country estates pillaging and murdering. At the same time they prevented the constitutional Government of the country from creating any armed forces for the maintenance of order. The union of Finland with Russia lasted until the 6 December 1917; then Finland declared itself an independent, sovereign state.

In the beginning of 1918, when Finland had already been brought to the brink of ruin, the country set itself the task of driving out the Russian troops and freeing itself from the anarchistic contagious disease, which had spread from the enemy, infecting some elements of the Finnish people. The people

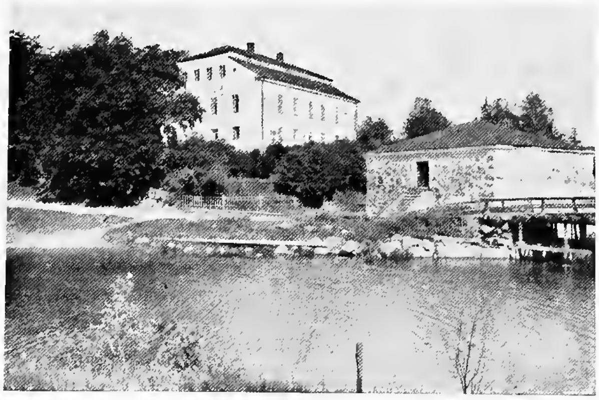


Fig. 13. Castle of Sjundby (Siuntio), in the south of Finland, of grey granite, dates from the XVI century. Originally the property of the family of Tott.

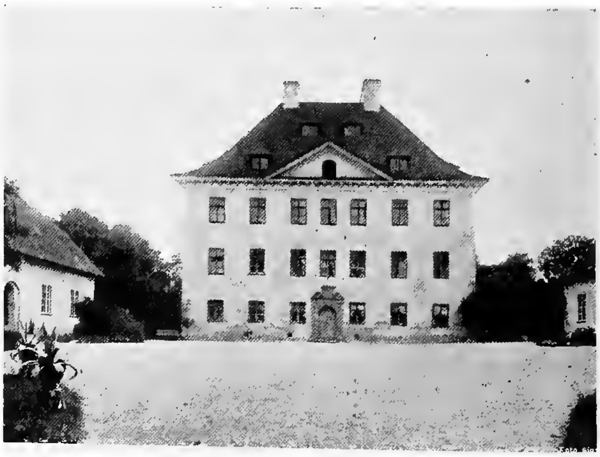


Fig. 14. Castle of Willnäs (Louhisaari), in the south-west of Finland, dates from the XVII century, and belonged to the noble family of Kurki.

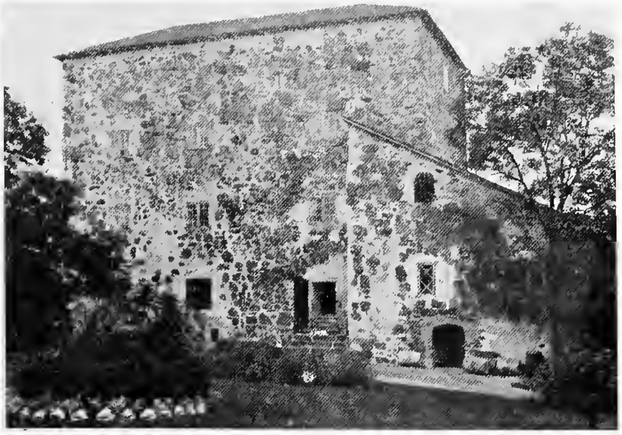


Fig. 15. Castle of Kvidja (Kuitia), in the south of Finland; the body of the castle was built in the middle ages.

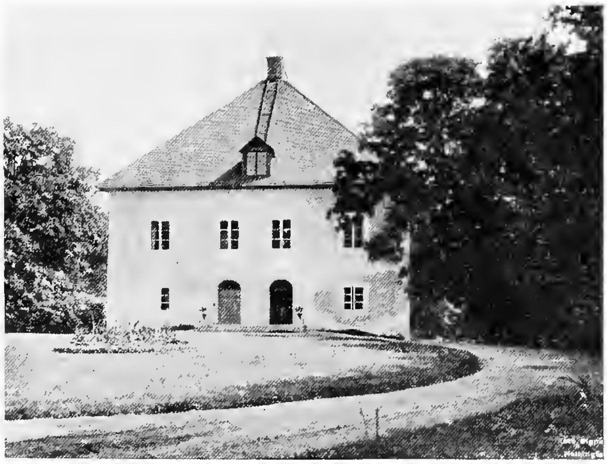


Fig. 16. Castle of Kankainen, in the south-west of Finland; the body of the castle was built in the middle ages.

commenced their fight for liberty by disarming from the very outset many of the Russian garrisons; this they did by means of sudden attacks, and being only armed with edged tools.

Finally, inspite of the heavy handicap of insufficient food and munitions, the Finnish White army succeeded, after many hard fights, in routing the Russian troops and the Finnish red-guards, which had been fully equipped by the Russians. The result of this cruel war, which Finland was compelled to wage on her own soil, was not only the saving of her own liberty, but the staving off of that wave of Bolshevism which aimed at the destruction of Western civilization.

The old monarchical constitution, dating from the time of the Swedish rule, was replaced by a new constitution, which declared Finland a Republic, and was accepted by the Parliament on the 17 July 1919. The Parliament is composed of 200 members, elected for a period of three years, by means of general elections, direct voting, and secret ballot; both sexes have the right to vote at the age of 24 years. The President of the Republic is elected for a period of six years. It was decided that the first President should be elected by the Parliament but that all succeeding Presidents should be elected by the general vote. Finland's Independence has been recognized by all the Powers.

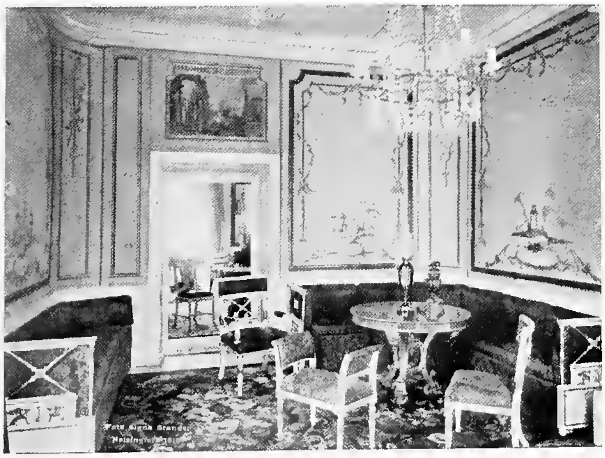


Fig. 17. Interior of the castle of Fagervik in the south of Finland.

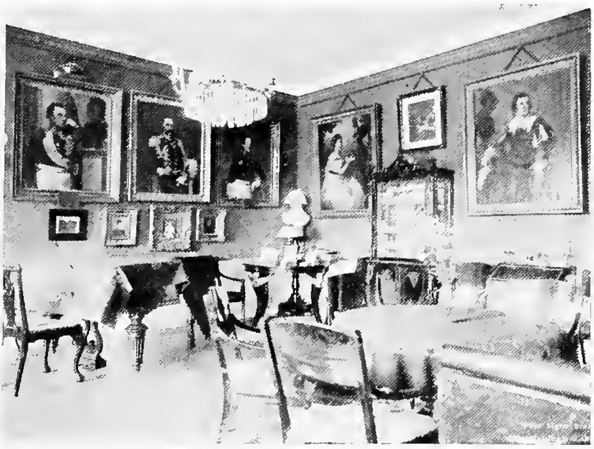


Fig. 18. Interior of the castle of Åminne (Joensuu) in the south-west of Finland.

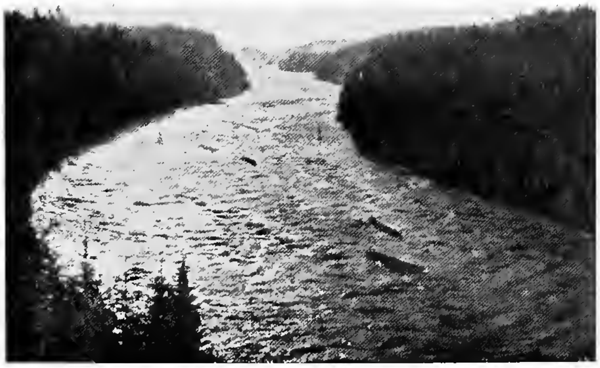


Fig. 19. Part of the river Oulunjoki in the north of Finland.

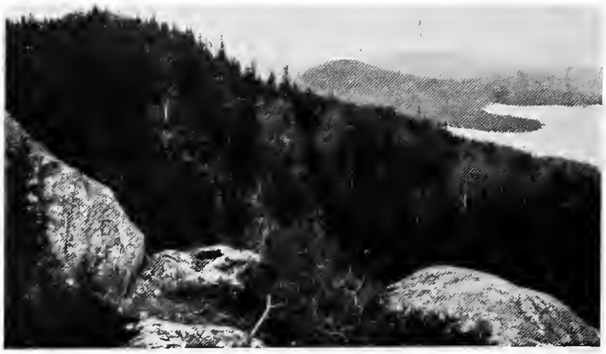
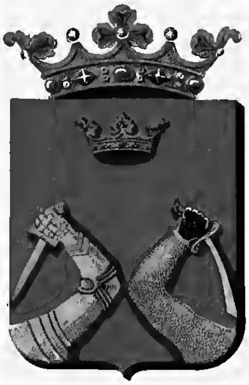


Fig. 20. View taken from the heights of Koli in the east of Finland.

As sharply as the granite rocks of Finland, rich in her mountains, hills and lakes, differ from the level plains of Russia, even so sharply do the characters of the two nations differ from one another; and yet again, as the climate of Finland, influenced from the West, victoriously wards off the threatening cold of the East, so are the people of Finland called upon to stand firm in their northern homeland, as the resolute outpost of Western civilization, against the destructive forces of the East.



Very old coat of arms of the province of Karjala (Karelen), bordering on Russia. The western sword on the right strikes the scimitar slav.

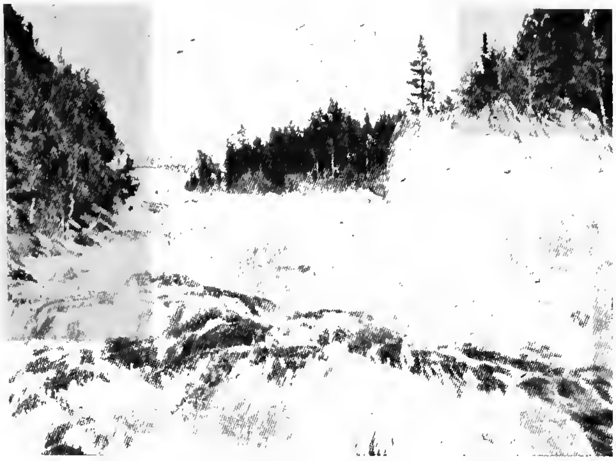


Fig. 21. Imatra falls, State property in the south of Finland Rich source of water=power, still unused, 141,312 horse=power, at average low water=level

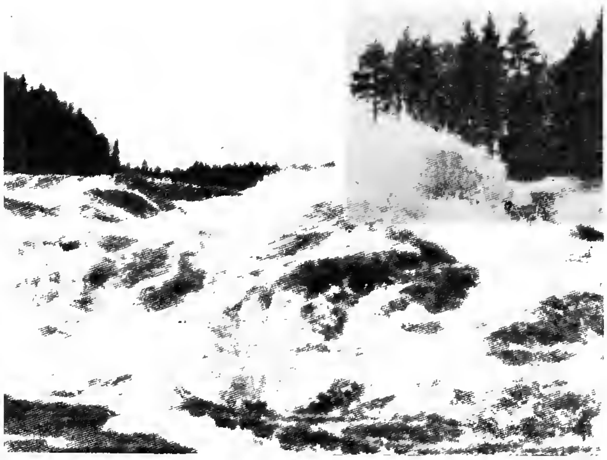


Fig. 22. Vallinkoski falls on the river Vuoksi.

Nature.

The area of Finland is 377,426 square kilometres, of which 333,140 square kilometres consist of land and 44,286 of water. Thus Finland is, as far as her area is concerned, a little larger than Great Britain and Ireland, and more than two thirds of France.

The basic strata of Finland consist mainly of such hard crystalloid varieties of rock as granite, gneiss, slate, and a peculiar kind of stone only to be found in Finland and called »rapakivi» (stone decom=posed by atmospheric influence), which constitutes the chief rock of the mainland and also of the Åland islands. On this ancient foundation lie immense heaps of gravel, sand, and clay, borne hither during the glacial ages. In the interior the moraine=formations predominate, whereas in the maritime districts are continuous clay stratifications, which cover considerable areas. In the climate of Finland both eastern and western influences are felt. The influence of the western ocean is however predominant everywhere. The Atlantic and the warm Gulf=stream, as well as the 1,150 kilometre coast washed by the Baltic Sea and its innumerable bays, makes the climate, considering the latitude, comparatively mild. The prevailing south=west winds bring warmth and moisture, and at the same time the waters of the Baltic attract atmospheric pressure minimums,

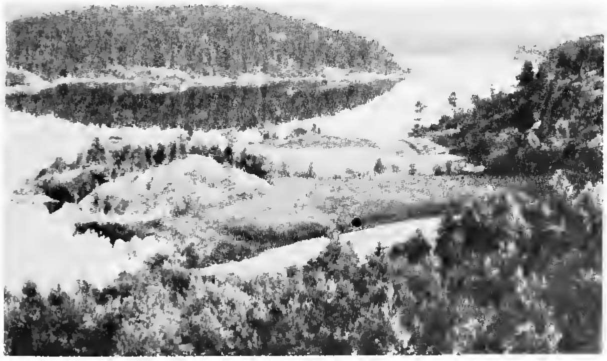


Fig. 23. Kalksalo. Landscape in the south=east of Finland.

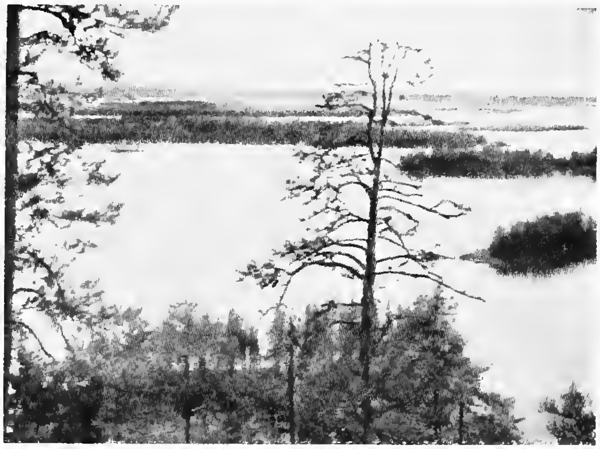


Fig. 24. View of the neighbourhood of the town Kuopio.

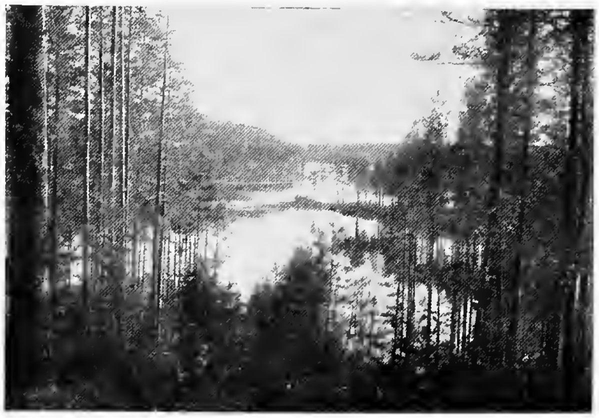


Fig. 25. View taken from Punkaharju in the south of Finland.

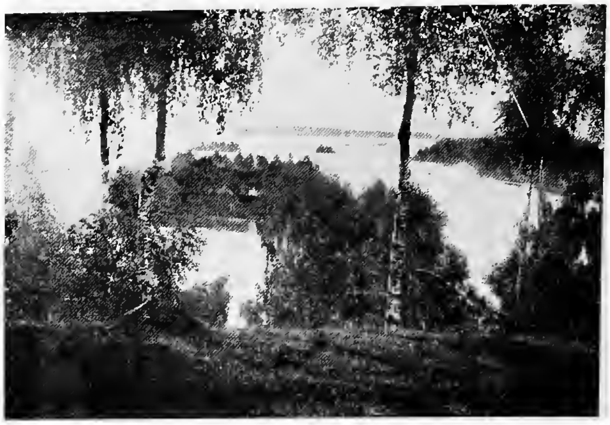


Fig. 26. Landscape in the parish of Savitaipale in the south of Finland.

which come from the west on the Atlantic, making the quantity of rain and snow considerable. The innumerable lakes of the country constitute important reservoirs for the great quantities of water created by the frequent rainfall. The lakes, connected with each other by means of sounds and rivers, constitute large water=systems, which pass their superfluous water along great rivers to the sea.

The innumerable swamps and bogs, which cover about one third of the entire surface, have also a great significance as water repositories, their turf and moss formations sucking up the water like sponges, and only allowing it to flow away gradually. Moreover, these swamps and bogs contain immense quantities of excellent material for fuel.

In regard to vegetation, the largest part of Finland belongs to the northern pineforest=zone. In the south a small part of the country belongs to the Central European oak=zone. As an intermediate growth between the two zones, is the southern Finnish leaf=tree. In the main, the vegetation of the country is comparatively rich, especially in trees which grow straight and tall. Numerous cultivated plants also thrive, including sugar beet and oats, the latter ripen even in the most northern parts of the country. The clearing of the Finnish soil for cultivation is, however, a heavy task, as the fields have for the most part to be cleared of dense forests or drained of swamps. On account of the barren soil, a considerable amount of work is always requisite for cultivation and agriculture generally.

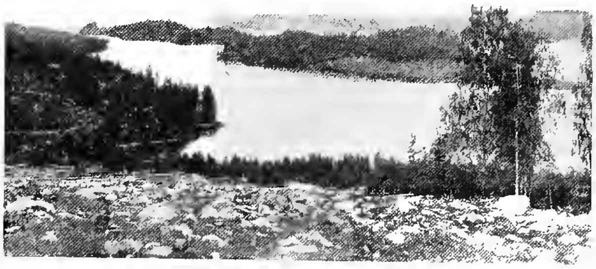


Fig. 27. Lake Isojärvi in the parish of Kuhmoinen, in the south of Finland.

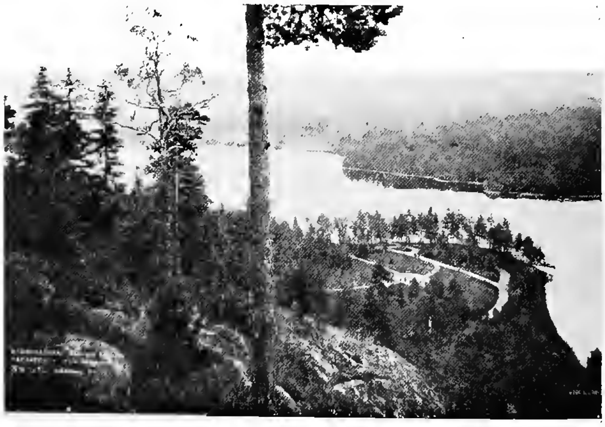


Fig. 28. View taken from the hills of Aulanko.

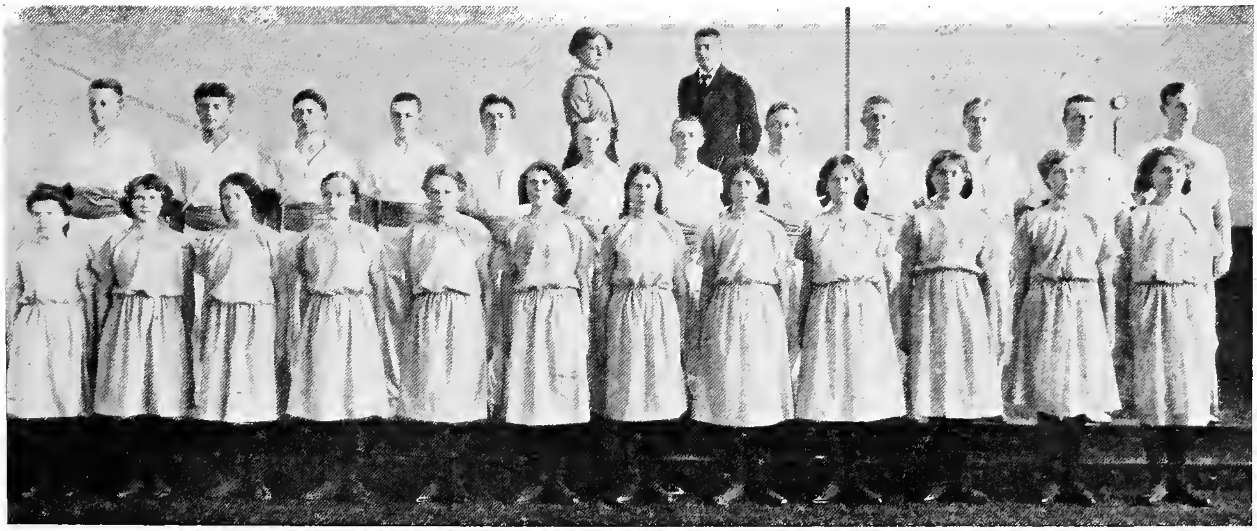


Fig. 29. Young schoolgirls and -boys in gymnastic dress

Population of Finland.

As regards physical structure, the people of Finland are strong and comparatively tall. The majority are fair. According to statistics, about 78% of the people are blue-eyed and about 57% are light-haired. The statistics below show the increase of the population.

In the year	1571	there were	300,000	inhabitants
»	1650	»	450,000	»
»	1750	»	534,065	»
»	1815	»	1,117,754	»
»	1850	»	1,636,915	»
»	1900	»	2,712,562	»
»	1917	»	3,346,853	»

The annual increase of the population during latter years has been about 30,000 persons.

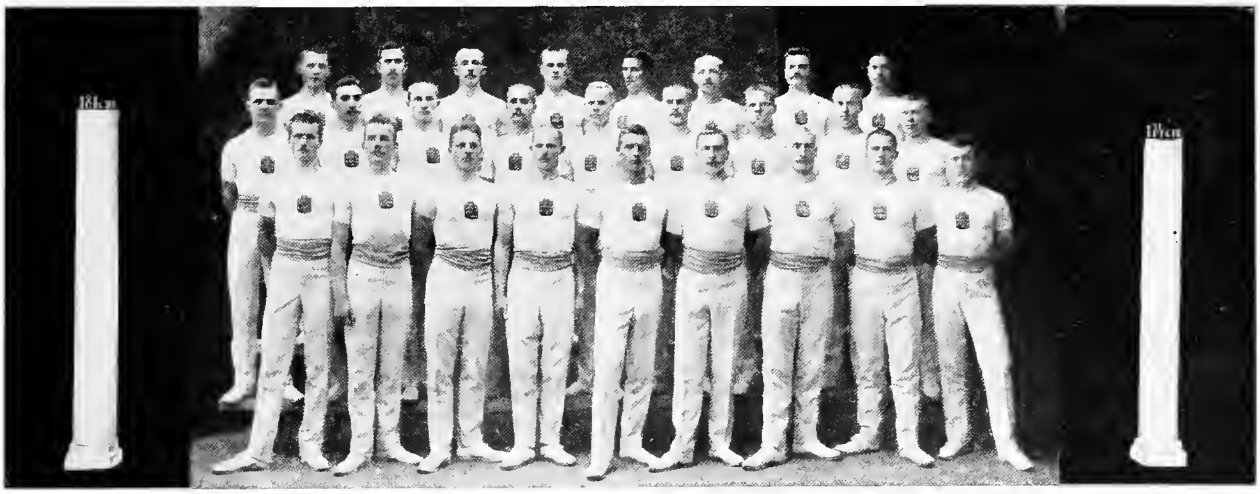


Fig. 30. Students, members of a gymnastic club, before a competition. The tallest is 181 cm, the shortest 174 cm

Fig. 31. Young girls chosen to make the laurel-wreaths, with which the Masters of Arts are crowned on the celebration of their promotion at the University of Helsinki (Helsingfors) in accordance with a custom, dating from the XVII century.

Fig. 32. The newly graduated Doctors at one of the traditional ceremonies.

In regard to languages Finland is fairly homogeneous. At the end of the year 1917 there were 2,961,853 Finnish speaking people, being 88,5 % of the total population, and 385,000 Swedish speaking, 11,5 % of the total. However it must be remembered that the Swedish speaking section of the Finnish people can not be regarded as a different nationality, because there is a considerable number of the originally Swedish speaking people, who now speak exclusively Finnish, and on the other hand many real Finns speak now Swedish. This mutual merging together, a work of centuries, has taken place because the settlements of the Swedish speaking people have not been continuous, but were wedged between purely Finnish districts. In consequence of this the majority has always in course of time won over the minority to its own language, and besides intermarriages between the two peoples have been very frequent.

Also with regard to religion the people of Finland are equally homogeneous, as practically the whole nation is Lutheran. Only a very small portion of the people, about 50,000, belong to the Greek-Catholic Church.

Fig. 33. Members of the Women's Gymnastical Society.

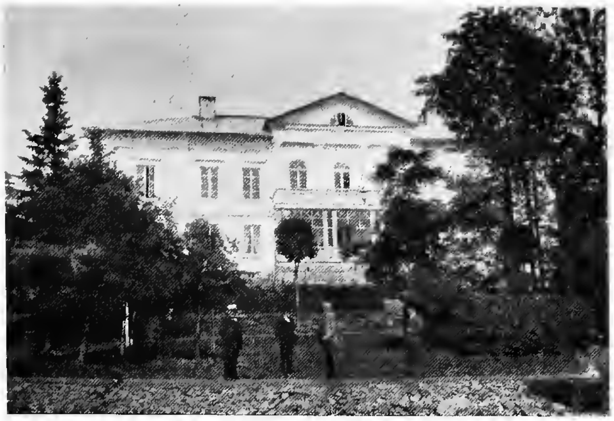


Fig. 34. The manor-house of a country estate, in the south of Finland.

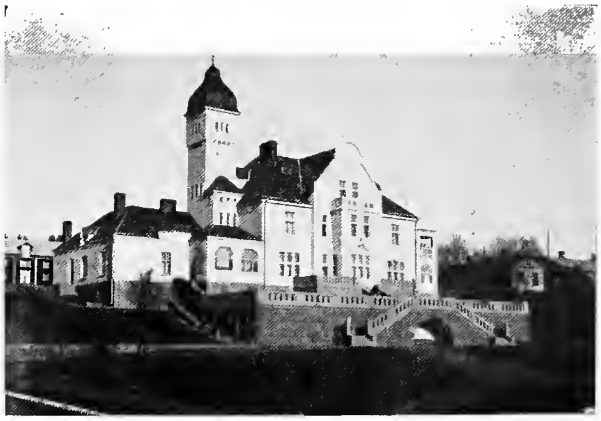


Fig. 35. A modern manor-house on an estate in the south of Finland.

Agriculture and Cattle-breeding.

In spite of its northern situation, Finland is essentially an agricultural country, and a great majority of the population make their living by it. A census of the people according to their trades and occupations was taken in the year 1910 and established the following results:

Agriculture (and similar occupations)	66,3	%	of the total	population
Industry	12,2	»	»	»
Transport and commerce	5,1	»	»	»
Public offices, education, hygiene professions and callings	2,6	»	»	»
Persons living on capital	2,4	»	»	»
Workmen and salaried men without professions	6,0	»	»	»
Various professions	3,3	»	»	»
Occupations unknown	2,1	»	»	»

According to the statistics for 1910, agriculture covered an area of 1,878,235 hectare (4,6 million acres) of cultivated land and 959,407 hectare (2,4 million acres) of natural meadows. During the course of centuries, the people have cleared for cultivation desert tracts, covered with vast forests, full of ridges

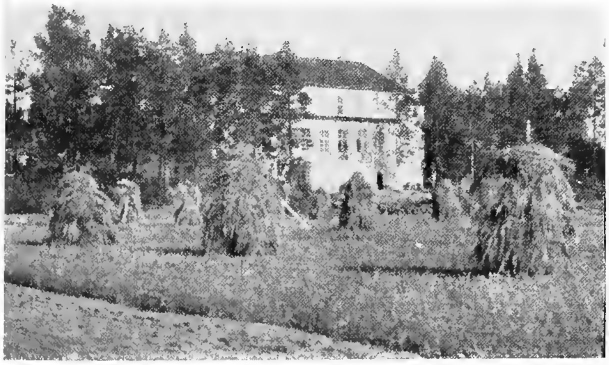


Fig. 36. Seed-laboratory on a country estate.

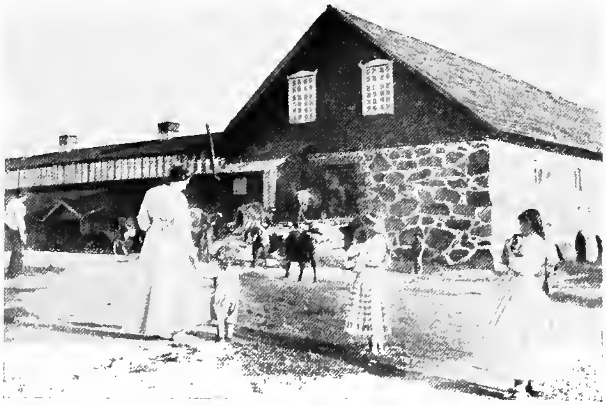


Fig. 37. Granite stables, old type.

Fig. 38. Mowing

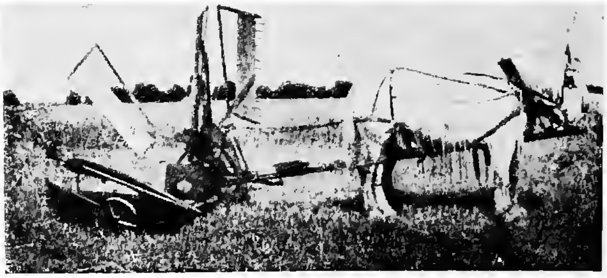


Fig. 39. Harvest.

and hills, lakes and moors. Even now about 61,5 % of the area of Finland consists of forest-lands, and about 30% of swamps, either thinly wooded or completely bare, while the cultivated parts amount to only 8,5 % of the whole. For the most part agriculture in Finland is worked on a poor moorland soil. Only in the coastal districts is the main foundation of clay, but nowhere are fields of fertile vegetable mould to be found. Agriculture is of course chiefly carried on in the southern parts of the country, but the pioneers of cultivation have extended their activities even to the far North. Autumn rye is cultivated everywhere as far in the North as the Arctic circle; it has even been grown in the valley of Kaamasjoki, which is situated $69^0 5'$ northern latitude. The northern boundary for the cultivation of barley is about 68^0. Barley, potatoes, and sweet turnips are cultivated by enterprising colonists as far in the North as the barren coast of lake Inari.

The annual harvest of Finnish crops has been as follows:

	Crops of grain and root (vegetables) reduced to kilograms of rye.	Straw and hay reduced to decitons of hay.
1878—1880	540,0 million kilograms	14,8 million decitons
1912—1914	803,0 » »	23,3 » »
1915	919,0 » »	23,6 » »
1916	793,0 » »	23,7 » »
1917	852,0 » »	19,7 » »

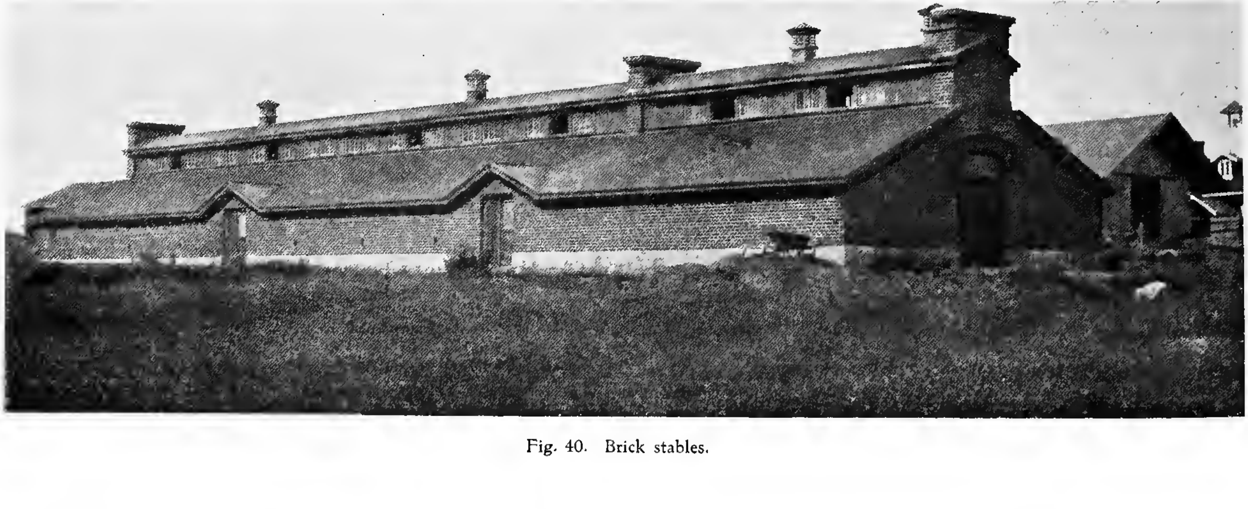


Fig. 40. Brick stables.

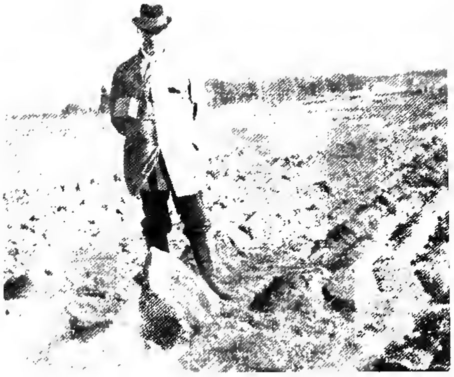


Fig. 41. A field laboured with the »Kullervo» tractor, the fig. shows the turning up of a stone, weighing 100 kilograms.

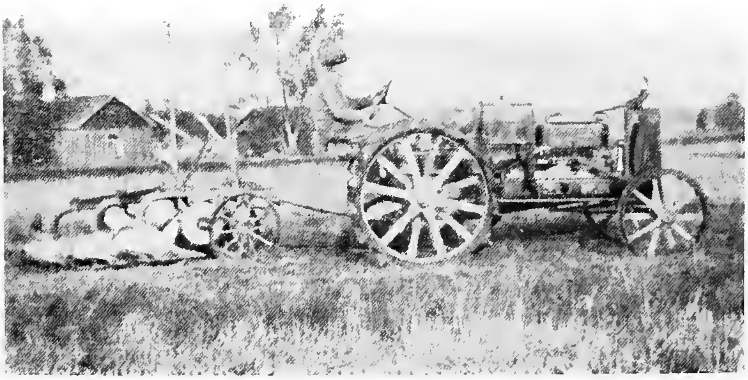


Fig. 42. The »Kullervo» tractor, Finnish type, built in Finland.

The average value of the total annual crops in Finnish marks has been:

1878—1880	180,8	million Finnish marks
1912—1914	324,5	» »
1915	465,3	» »
1916	567,0	» »
1917	1,940,2	» »

During the last decades Finnish agriculture has made rapid progress, when taking into consideration the infertibility of the soil. The largest proportional increase has been in the production of hay, which has at present reached a figure about twice that for the beginning of the year 1880.

In 1911—1915 the average harvest of various cereals and similar products has been as follows

Wheat	4,8	million kilograms
Rye	267,0	» »
Barley	102,6	» »
Oats	371,8	» »
Blended cereals	13,9	» »
Peas and beans	7,5	» »
Potatoes and other root vegetable	641,2	» »

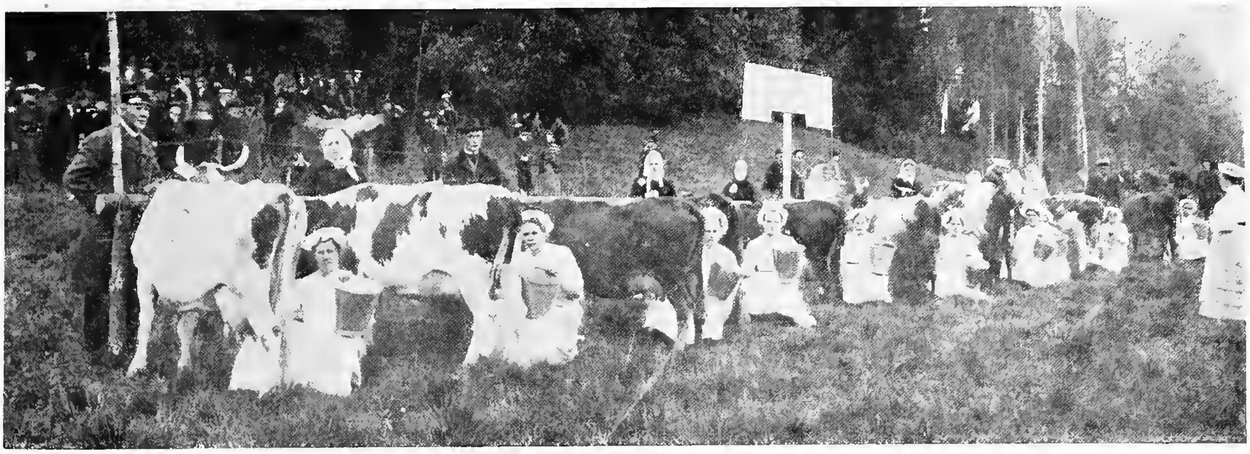


Fig. 43. A competition.

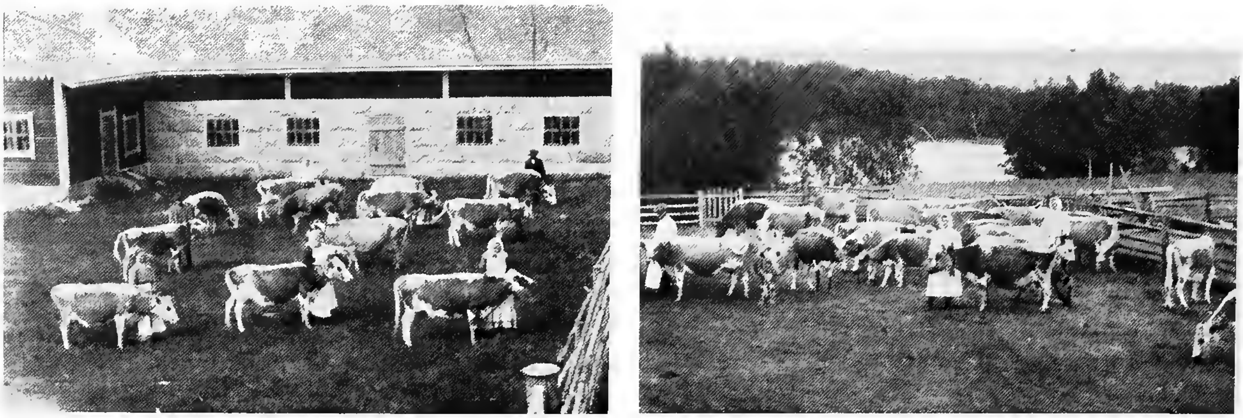


Fig. 44. Finnish cows bred in the interior of the country.

Together with agriculture, both cattle-breeding and dairy farming have made rapid progress in Finland during the last decades.

The figures given below show the estimated stock of cattle for the following years:

1870	1,567,800	heads
1880	1,673,200	»
1890	1,894,600	»
1900	2,050,100	»
1910	2,270,000	»
1918	1,872,000	»

The decrease of stock as shown for 1918 was due to the war.

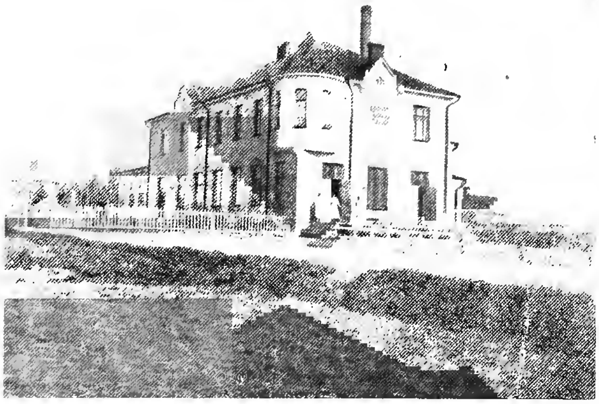


Fig. 45. Co-operative dairy built of bricks

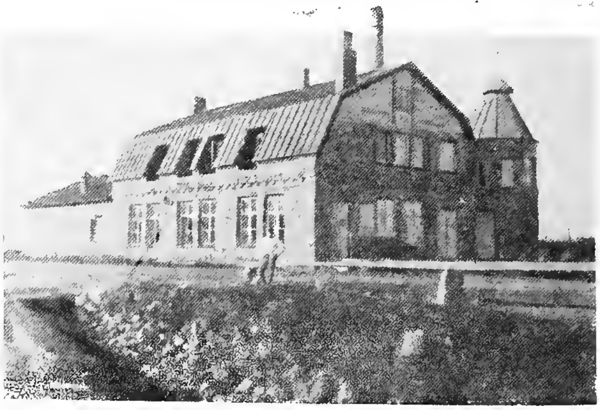


Fig. 46. Co-operative dairy built of granite.

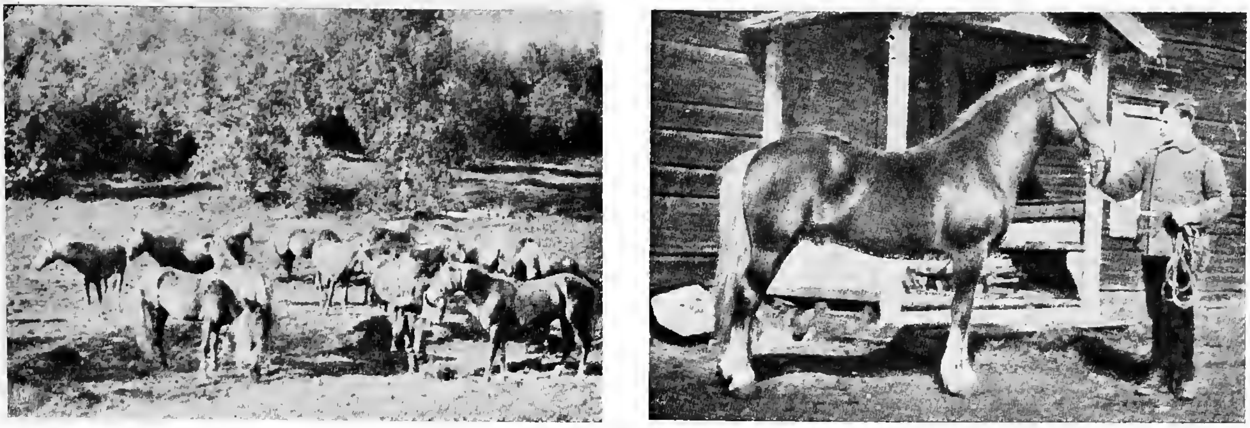


Fig. 47. Finnish horses bred in the interior of the country.

The cattle-stock in 1910 and 1918 was comprised as shown below:

	1910	1918
Horses over three years of age	300,900	239,477
» under » » »	65,100	69,878
Oxen over two years »	1,199,000	987,334
» under » » »	406,100	412,927
Sheep over one » »	786,400	671,911
» under » » »	543,300	452,620
Pigs over eight months old	156,900	125,717
» under » »	265,400	100,801
Goats	10,900	
Reindeer	127,400	

As the cattle slaughtered during the war was chiefly old and of an inferior quality, the cows remained fairly well preserved during that period.

Fig. 48. Interior of a co-operative dairy.

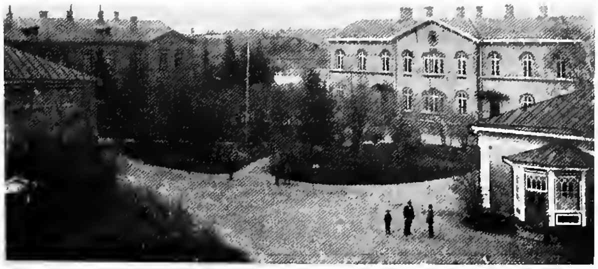


Fig. 49. Mustiala, Agricultural institute.

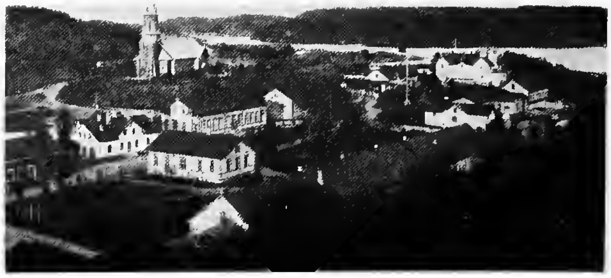


Fig. 50. Kurkijoki, Agricultural institute.

The Finnish dairy butter has already gained a first class reputation on foreign markets. Previous to the outbreak of the war, the annual export of butter was some 12 million kilograms or 26,4 million pounds, the value of which was about 35 million Finn. marks, equivalent to about 6,8 million dollars. In general, the last decades have shown great progress and development in Finnish agricultural economy. Scientific methods applied to agriculture, the use of agricultural machinery, and artificial manure, the latest methods for working the bogs, and for the improvement of cattle=stock, have become more and more general all over the country. Even in country districts electricity is taking the place of steam, and is extensively used for running agricultural machinery, grain=mills, and saw=mills; it is also being more generally used for lighting cattle=sheds, stables etc. Recently large power=stations have been erected, which supply electric power to different country places over a distance of hundreds of miles.

One of the most important factors in the general development described above has been the co=operative movement, which has grown very rapidly in Finland. In the year 1901 the first co=operative societies were founded, and since that time the co=operative movement has developed as shown below (see also diagrams of the active agricultural co=operatives).

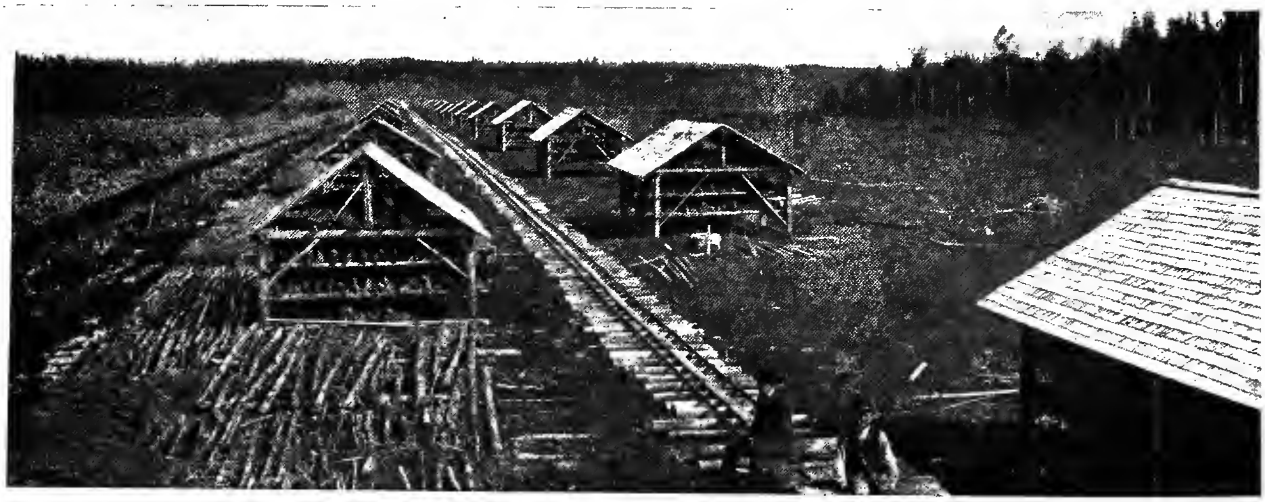


Fig. 51. Peat factory.

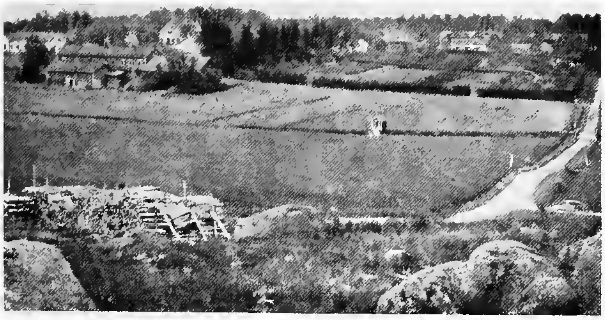


Fig. 52. School of agriculture in Harju.

Fig. 53. School of horticulture in Lepaa.

Year	Number of societies inscribed in the Register of commerce
1901	1
1906	862
1912	1,899
1916	2,481
1917	2,922
1918	2,988

In addition to these, there are a great number of small societies, which have not been inscribed in the Register of commerce.

At the end of the years 1918 and 1919 the following different co-operative societies in Finland were inscribed in the Register of commerce (see also map of the agricultural co-operatives):

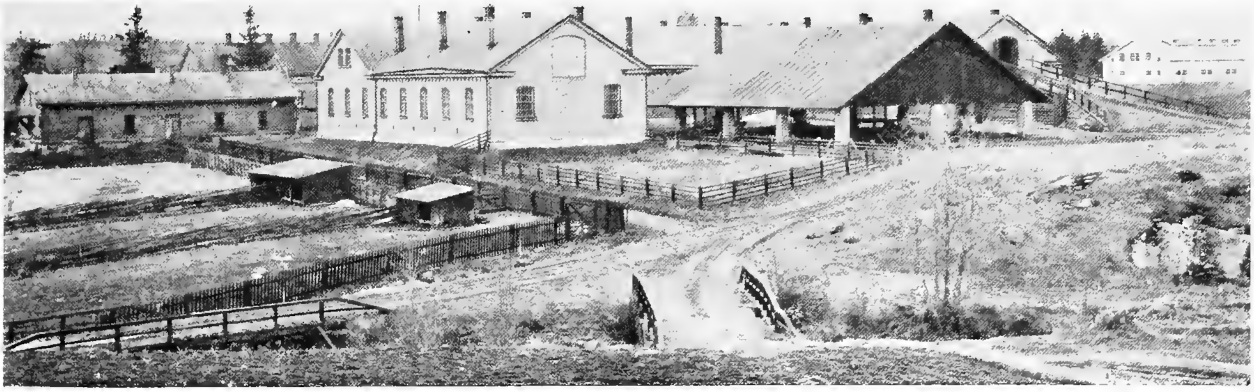


Fig. 54. Outhouses on a large country estate.

Fig. 55. Small country estate in the south of Finland.

Fig. 56. Hay-making on a small estate.

	1918	1919
Agricultural co-operative credit societies	708	714
Co-operative stores	689	740
» dairies	494	496
» societies for the purchase of thrashing machinery	295	303
» » for the working of peat	172	181
» » for sale of eggs	69	71
» telephone societies	84	97
» electric power societies	15	45
Other co-operative societies	462	488
Total	2,988	3,135

Through the co-operative movement, the production of dairy butter, for instance, has almost entirely been taken over by the farmers themselves, and this also applies, for the most part, to the export of butter.

Fig. 57. Small farms in a valley in the east of Finland.

Fig. 58. Small estate in the interior of the country

By means of the agricultural co=operative credit societies, credit relationships in the country parishes are being placed more on a footing which best answers the needs of the general community, while the co=operative stores enable the farmers to purchase at a low price goods of first quality. Finally, by the help of co=operative societies, it has become possible for the small farmers to procure modern thrashing machines, driven by steam or electricity, and other modern appliances, and also peat at a moderate price. In a word, there is already in existance a close net=work of co=operative societies, pioneers of progress, extending to all parts of the country.

Finnish agriculture has still much to achieve; by introducing a steadily progressive measure of intensive farming over the cultivated areas and by clearing natural meadows, swamps, and suitable forest=land for cultivation, the productivity of Finnish agriculture can be raised to a level many times higher than the present one. This development has, however, been hitherto retarded by the lack of capital.

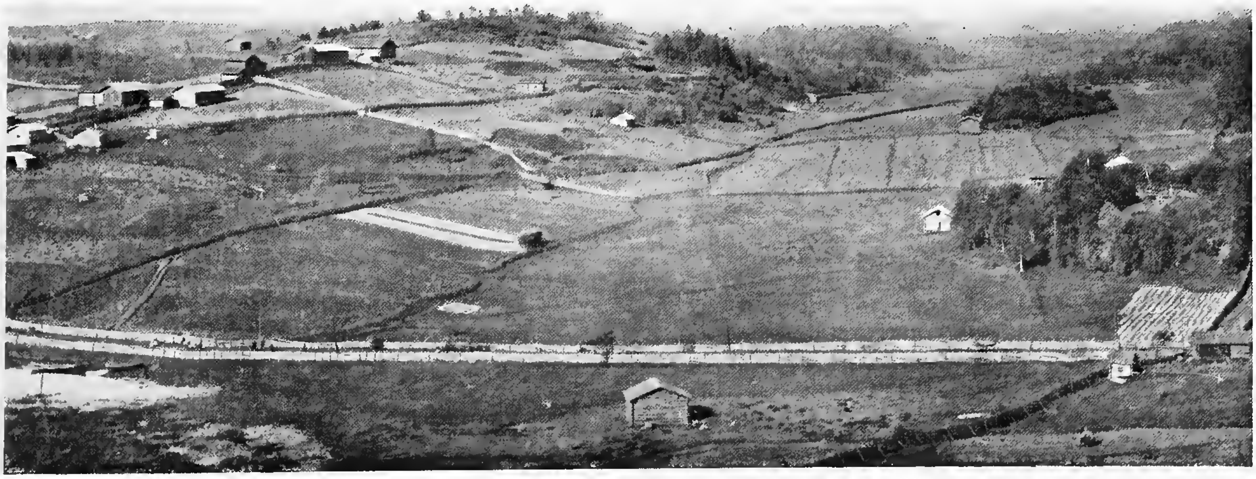
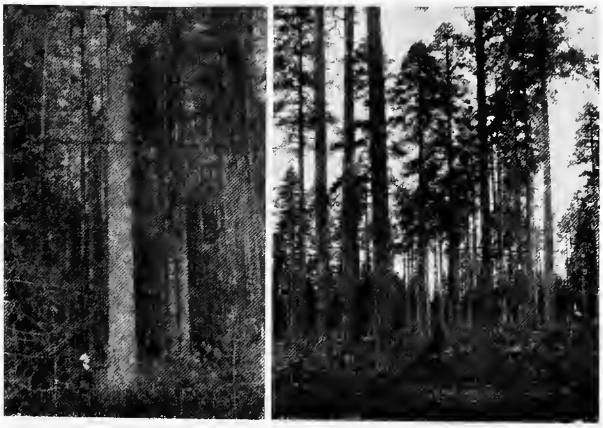


Fig. 59. Small farms in a valley in the east of Finland.



Figs 60-61. Pine forests. The Finnish pine grows very straight and tall.

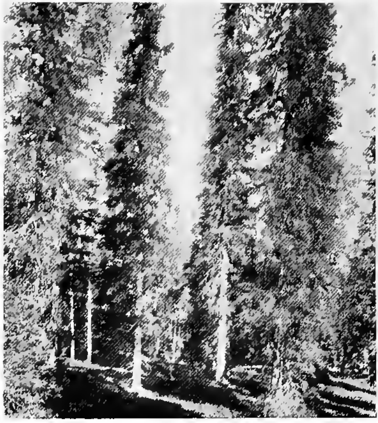


Fig. 62. Fir=tree forest.

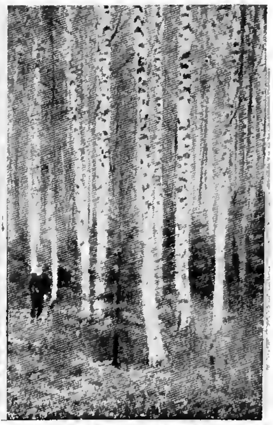


Fig. 63. Birch=tree forest.

Forests.

The forests of Finland are of the utmost importance to the national wealth of the country and extend over an area of 20 million hectare, or 49,4 million acres. The principal tree species in the forests are the pine, fir and birch. The Finnish pine=tree is especially of great value, as it flourishes everywhere, in both poor and rich soil. It grows very straight and tall, for which reason it will always be — as are the pine=trees of northern countries in general — in great demand on the world market. The vast inland birch forests, on the other hand, supply the veneer industry and dry=distillation with valuable raw materials. The value of the Finnish forests is greatly augmented by the fact, that the timber is easily transported to the refineries and ports of exportation, along the innumerable water=ways, which form a net=work linking together the whole country.

Up to the present, no exact information has been obtained as to the productive capacity of the Finnish forests. Supposing that on an average a hectare (2½ acres) contains only 55 cubic metres (1,943,4 cubic feet) of wood, and estimating the annual growth at only 1%, we may thus fix the productivity at about 10 million cubic metre (353,3 million cubic feet) full measure in a year. The great national significance of the forests may be gathered from the fact, that they supply the whole country with its

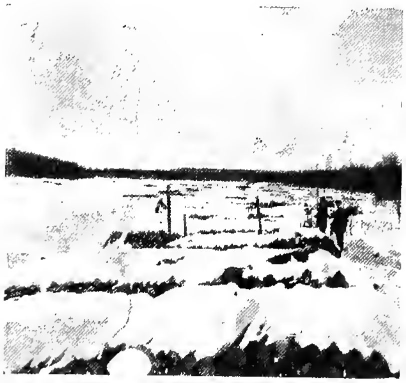


Fig. 64. Quantity of tree=trunks on a frozen lake.

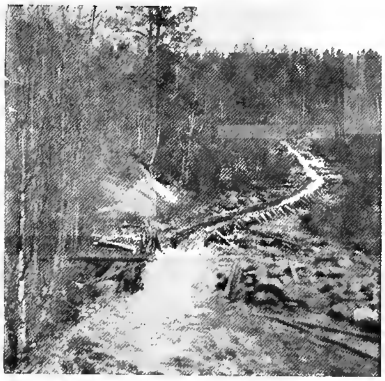


Fig. 65. Conduit for timber floating.

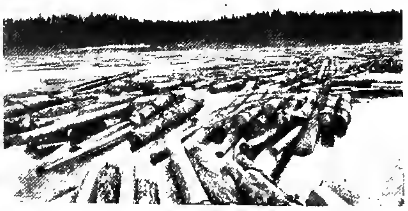


Fig. 66. Rafts of floating timber.

Fig. 67. Forest of cone trees.

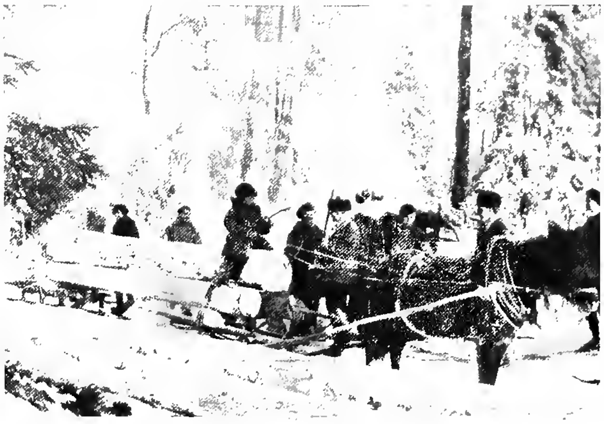


Fig. 68. Transport of tree-trunks from the forest over a frozen lake.

principal building materials, fences, and fuel. In addition to which they support the chief industry and export of the country. Of the total number of exports during the years preceding the war (1911—1913) 72,5 % belonged to the timber and wood trade and paper industry. It goes without saying that the importance of forestry to the economic welfare of the country greatly encourages rational cultivation during the last decades this has made great progress and has led to a more efficient utilization of forest resources. A considerable part of the forests belong to the State. The area of the so-called »crown forests«, including boglands, was, at the end of the year 1917, 12 million hectare, or 29,6 million acres. Of this area 5,4 million hectare, or 13,3 million acres, were vegetative forest-land. Thus more than one fourth of the forests are State property.

The timber stock of the crown forests was on the 1:st January 1917 as shown below:

tree-trunks, height 1,3 metres, diameter 30 cm or over	76,612,612
» » » » » 25—30 cm	109,899,603
Total	186,512,215

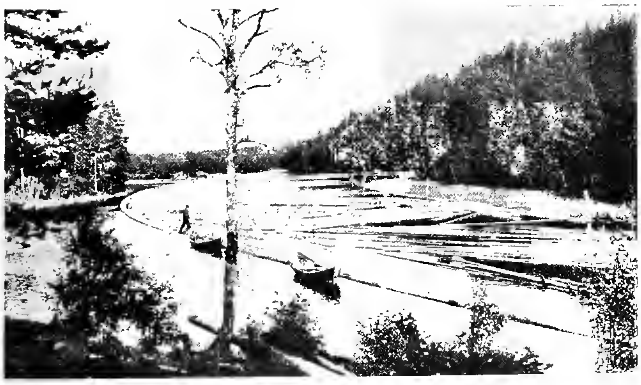


Fig. 69. Timber rafts going down stream.

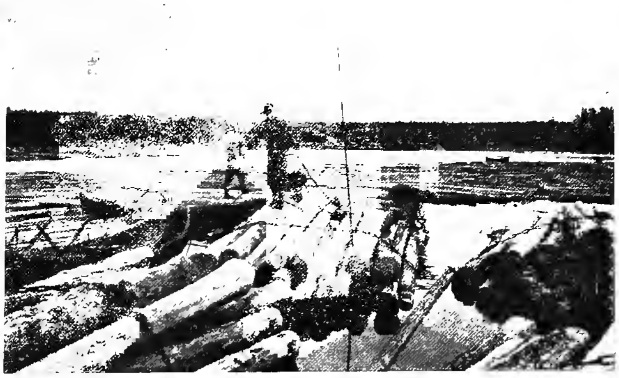


Fig. 70. Putting the stocks in floating line.

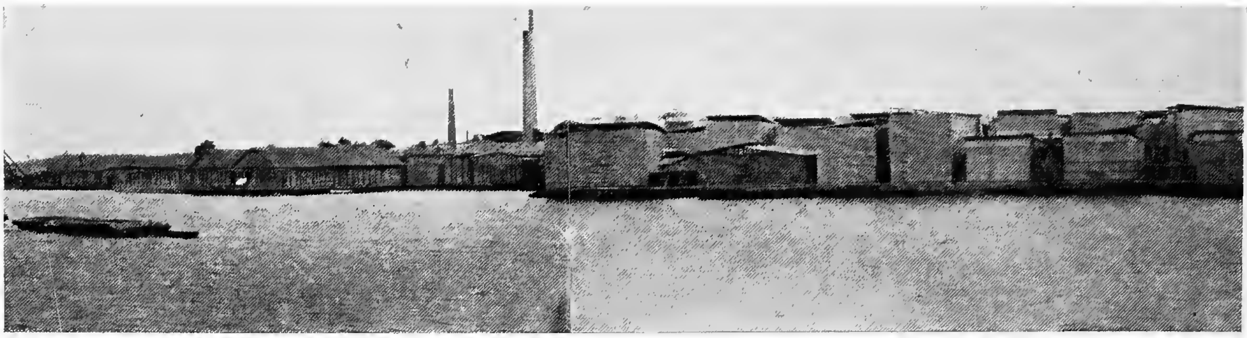


Fig. 71. Part of the saw-mills of Gutzeit.

Industry.

As in agriculture and forestry, there has been a remarkable development in industry. The earliest industry was patriarchal, but towards the end of the Middle Ages a considerable export trade grew up; however, industry proper is the growth only of the last 35—40 years. The figures given below show the number of workmen employed in the factories, the horse-power of the main power plants and electro-motors, and the average value of the annual production.

	Number of workmen	Power plants H. P.	Electro-motors	Value of annua production
1885—87	30,000	35,000 horse-power	— — horse-power	100,0 million marks
1911—13	103,070	262,818 »	70,307 »	683,2 » »
1914	106,097	299,952 »	100,532 »	702,1 » »
1915	100,905	314,149 »	116,873 »	884,0 » »
1916	109,900	318,629 »	123,277 »	1,459,0 » »

If the value of the raw materials and semi-manufactured goods be deducted from the gross value of the total production, the average annual value of manufactured goods during 1911—1913 will be about 279,4

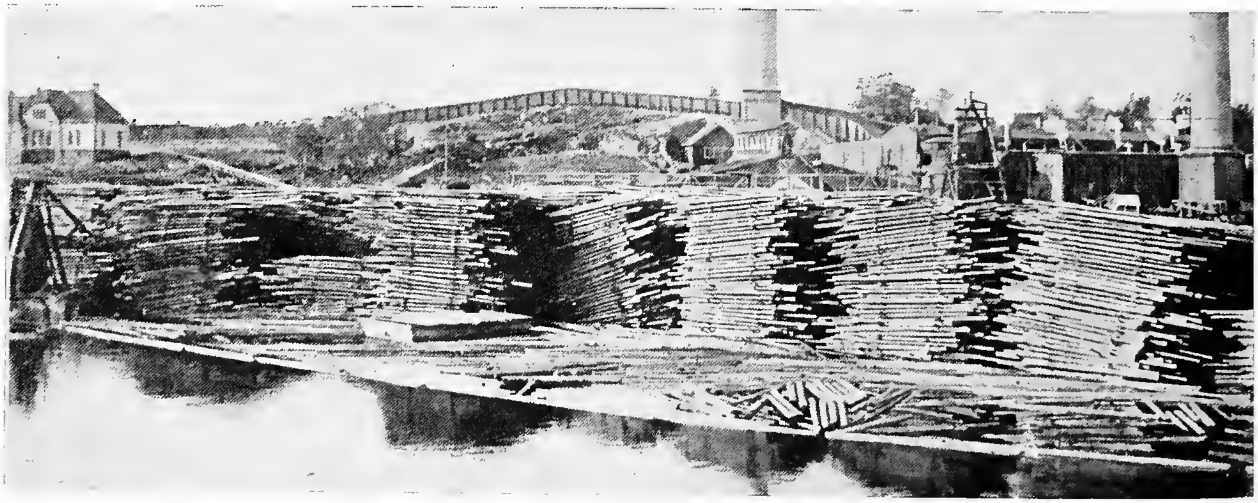
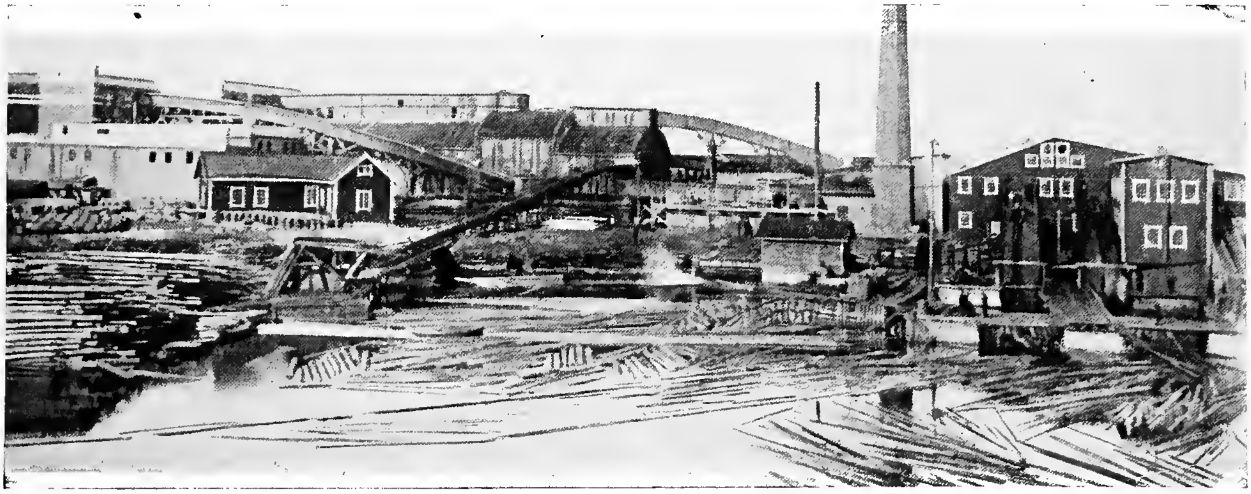


Fig. 72. Continuation of fig. 79. Part of the saw-mills of Gutzeit in Kotka, a town in the south of Finland.

See also figs 72—76. Piles of sawn timber.

million Finnish marks, while in 1916 these figures had risen to 683,6 million marks. The chief centres of Finnish industry are Helsinki (Helsingfors), Tampere (Tammerfors), the Kymi (Kymmene) river valley, Turku (Åbo) and its neighbourhood. In these four districts is centralized, approximately, one half of the entire industry of the country. As a general rule industry has shown a tendency to establish itself on, or near the sea-coast. However one of the foremost industrial centres, viz. Tampere (Tammerfors), is situated in the interior of the country. In latter times industries have been established still further inland and have developed vigorously, especially in the neighbourhood of the great rapids and waterfalls. Such inland centres are e. g. Varkaus and Kuopio, which are quite in the heart of Finland (see map of industry).

The most important branches of Finnish industry are: wood, paper, metal, textile and leather industry. The following figures show the gross value of production in 1913 and in 1916.



One of the largest saw-mills in the world. The greater part of the firm belongs to the State.

Fig. 73. Continuation of fig. 71. Part of the Firm of Gutzeit. The boxboard mill.

	Gross value of production	
	1913	1916
Wood industry	171,2 million marks	147,5 million marks
Paper »	101,4 » »	283,0 » »
Textile »	94,2 » »	168,8 » »
Metal »	84,2 » »	301,5 » »
Leather »	30,6 » »	84,4 » »

The most important Finnish manufactures are:

Sulphate cellulose
Sulphite »
Mechanical paste

Cardboard

Brown paper
Building paste board
Newspaper
Paper partly of mechanical paste
» free » » »

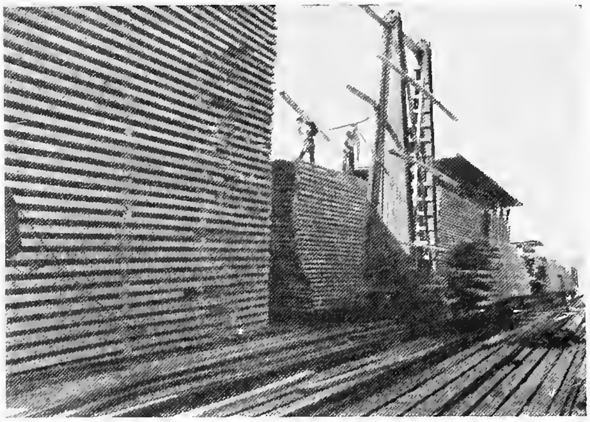


Fig. 74. Part of the Firm of Gutzeit's timber-yard. Stacks of sawn planks.

Fig. 75. Part of the Firm of Gutzeit's timber-yard.

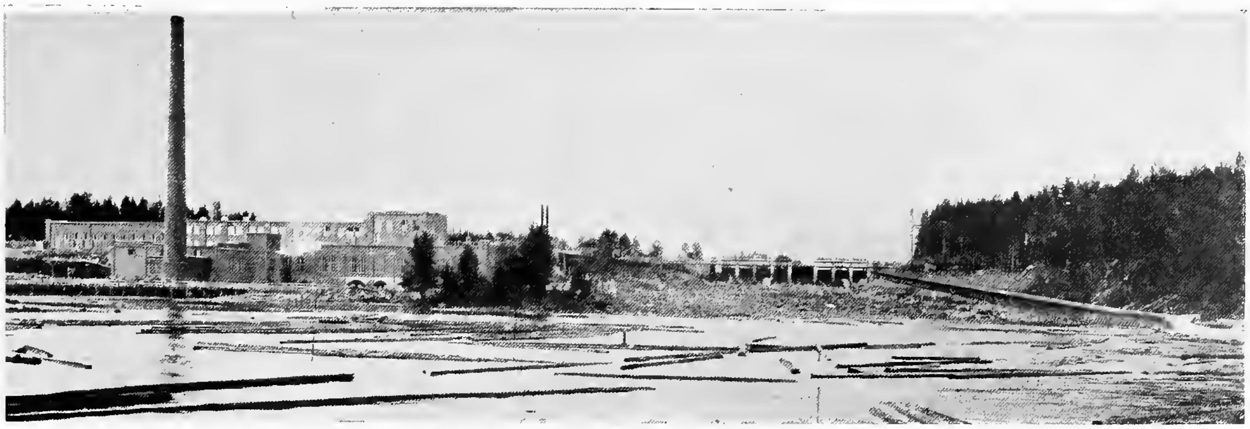


Fig. 76. Continuation of fig. 73. Part of the Firm of Gutzeit. See also figs 74 and 75. Saw-mills.

Rag paper
Wall »
Parchment paper
Tissue and cigarette paper
Manufactured wall-paper
Paper bags and envelopes
Writing paper and envelopes
Planks
Battens
Scantlings
Floorings
Beams
Boxboards
Slating battens
sawn and planed

Veneers
Window frames
Doors
Joinery

Bobbins
Cart-wheels
Boxes and wooden vessels
Furniture
Boats
Wood charcoal
Tar
Turpentine
Resin

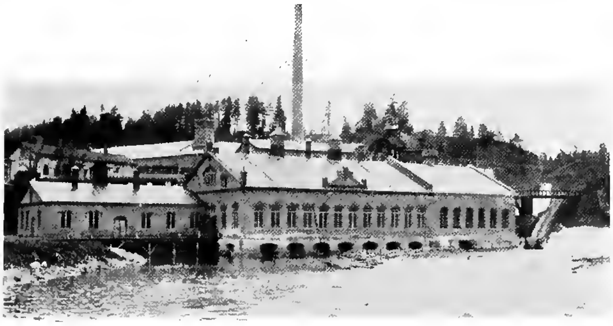


Fig. 77. The Kyröskoski paper-mills (Hammarén & C:o).

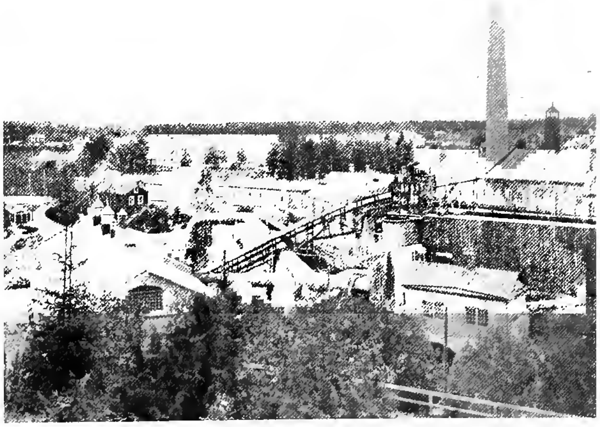


Fig. 78. Continuation of fig. 77.

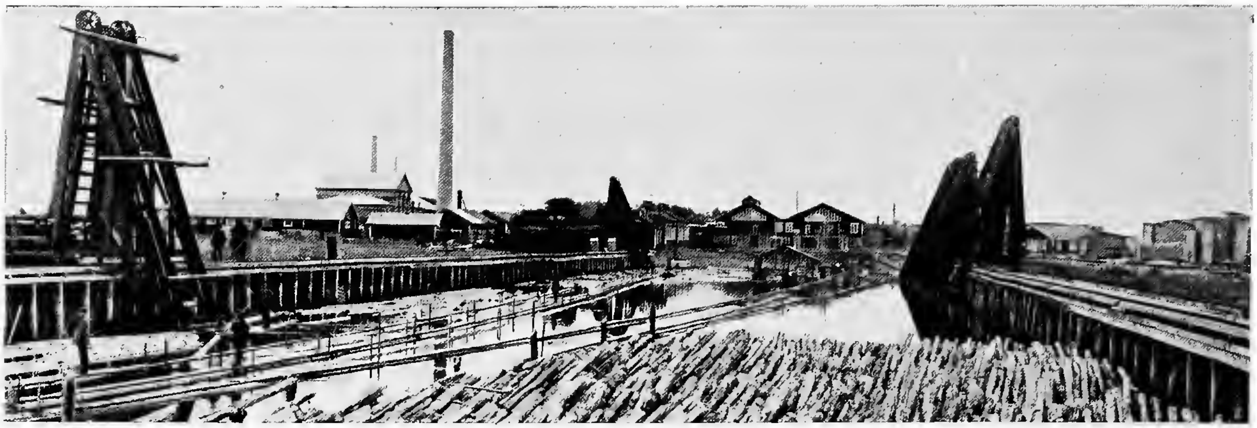


Fig 79. Piled stocks. Rosenlew & C:o in Pori (Björneborg), in the west of Finland. See also figs 80, a. b. c.

Wood=spirit
Matches
Peat
Curb=stones
Columns and flag stones

Ploughs
Harrows

Precious stones
Shovels
Mowing=machines

Horse=drawn rakes
Tractors
Thrashing=machines
Separators and dairy plant
Tin=plate cans for transporting milk
Woodworking machinery
Plant for preparation of Peat
» » » » Mechanical Paste
» » » » Cellulose
» » » » Wall=paper

Water=turbines
Steam=engines and boilers

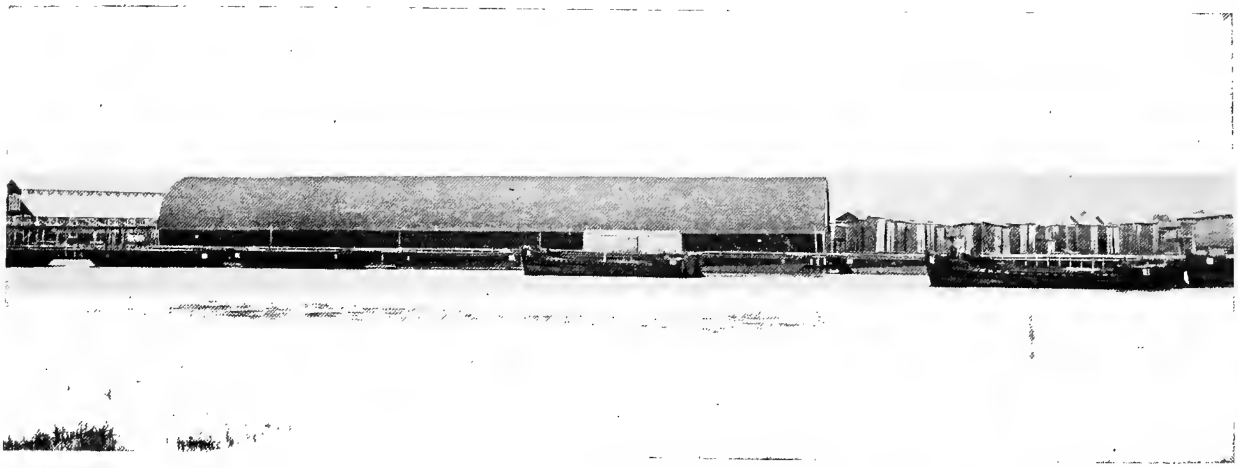


Fig. 80. b and c. Continuation of figs 79 and 80 a. Part of

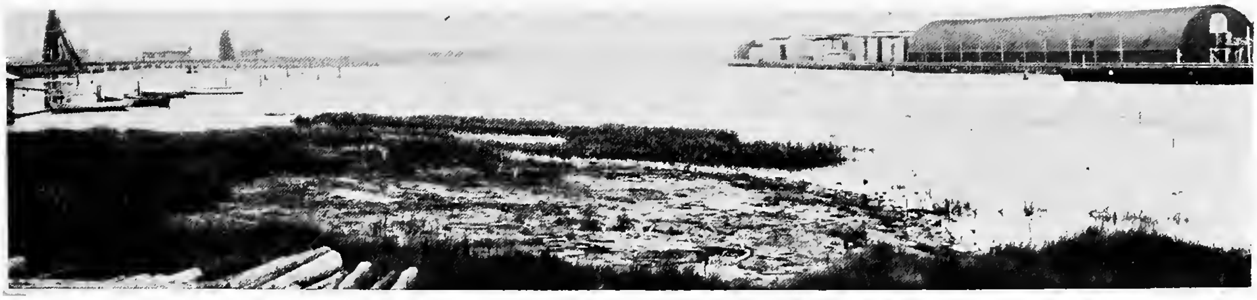
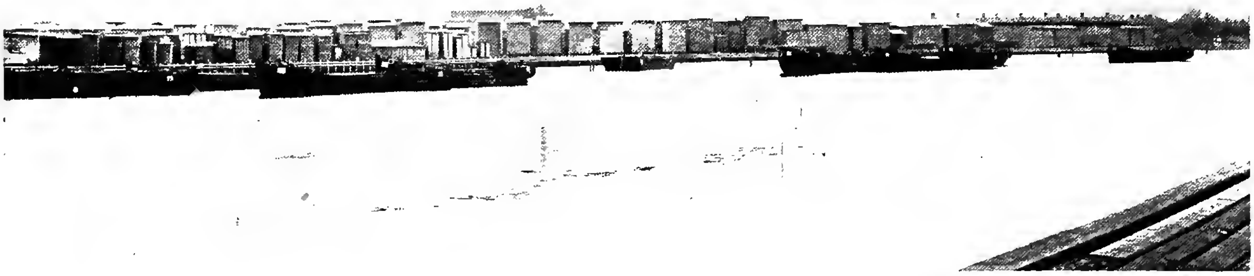


Fig. 80 a. Continuation of fig. 79. Part of Rosenlew & C:o in Pori (Björneborg), in the west of Finland.

Internal combustion engines
Electric machines
Steam- and motor-boats
Pumps
Iron bedsteads
Leather manufactured goods
Textile » »

A characteristic feature of modern Finnish industry is its tendency to form large central combines. For instance in the year 1913 more than one half of the factory-workers of Finland were employed in manufactures, which each had a gross value of over one million Finnish marks annually. In fact there are in Finland some of the largest industrial establishments in the North. For example, it was certified in 1913 that the largest paper-mill, cotton-mill, linen-factory, tobacco-factory and leather-factory in Northern Europe were to be found in Finland.

Another fact worthy of notice is the change of ownership; the industrial management of the country, which was largely in the hands of foreigners, is now steadily being taken over by the Finnish people themselves.



Rosenlew & C:o in Pori (Björneborg), in the west of Finland.

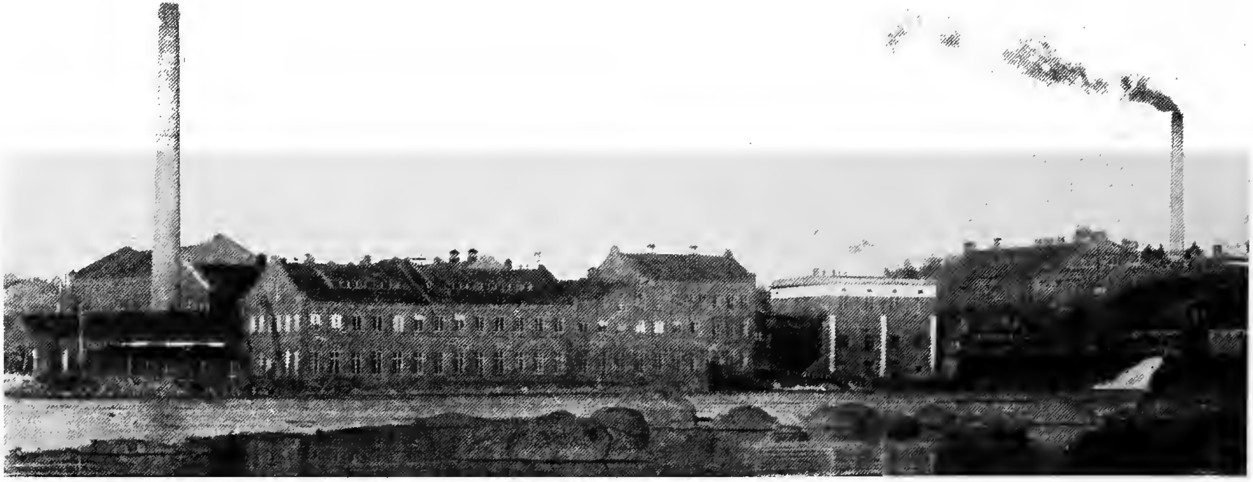


Fig. 81. Part of the Kymi (Kymmene) mills on the river Kymijoki. One of the largest pulp-, cellulose- and paper-mills in the world. See figs 82—85.

Mention may especially be made of the Halla Wood Company, the shares of which were bought from Norwegian business-men by the Kymi (Kymmene) Company; and also Gutzeit and Co, the largest woodbusiness in the country, the share majority of which is now in the hands of the Finnish State. The net value of the property of the latter Company is estimated at about 287,861,000 Finnish marks or 55,571,620 dollars.

The rapid progress Finnish industry has made during the last decades is worthy of notice, as its development has been entirely due to its own initiative, without any direct support from the Government. The measures taken by the Government for the furtherance of industrial development have been limited to the maintenance of a Technical High School, a few secondary Technical schools and the granting of credit for industrial enterprise amounting only to some millions of marks altogether. Instead of receiving support from the Government, Finnish industry has had, throughout the whole period of Russian rule in Finland, to fight against heavy duties and inappropriate railway tariffs, which were imposed merely for fiscal purposes and could not be altered because of Russian pressure. Besides which the Russian Government set up high protective tariffs in favour of Russian goods, against Finnish industry, and

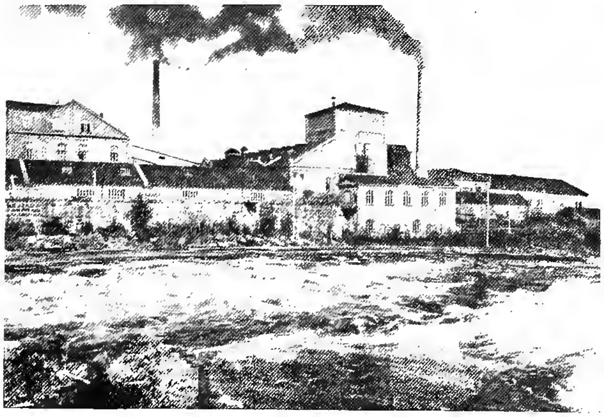


Fig. 82. Continuation of fig 81. Part of the Kymi (Kymmene) paper-mills.

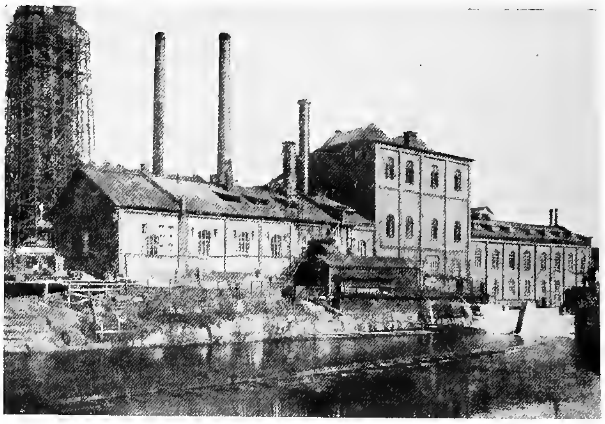


Fig. 83. Continuation of fig. 81. Part of the Kymi (Kymmene) paper-mills.

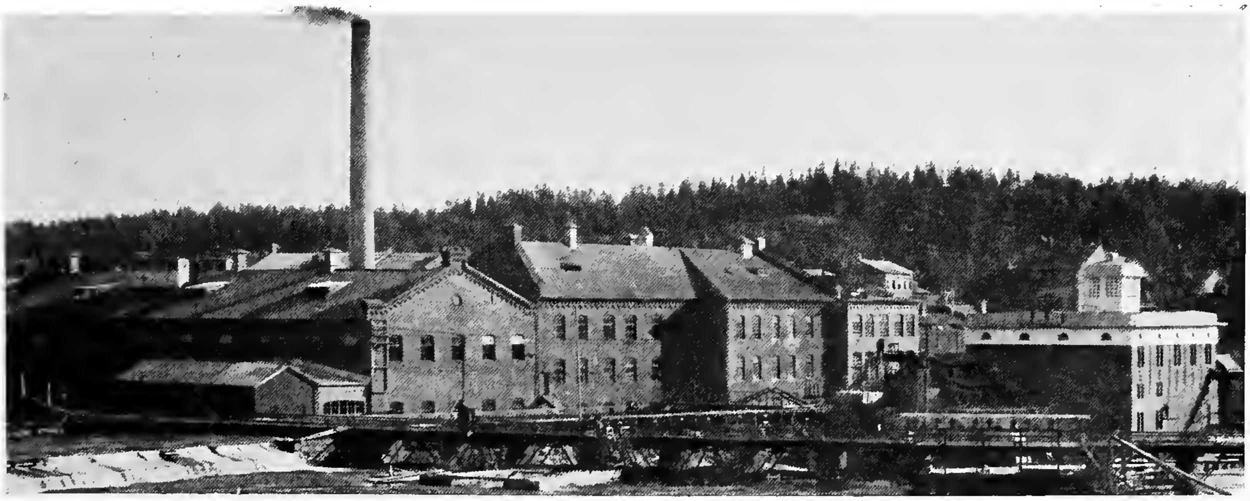


Fig. 84. Continuation of fig. 81. Part of the Kymi (Kymmene) paper-mills.

at the same time tried to increase the sale of Russian goods on the Finnish market, by compelling the Finnish Government either to lower the duty on these goods or to abolish it altogether. It is also worthy of mention that, during the time of Russian rule in Finland, Finnish industry was placed, by orders of the Russian Government, under the same restrictions as was foreign industrial enterprise; while Finnish firms were never even allowed to receive the support which foreign consuls and commercial agents are able to render their nationals in foreign countries.

Thus the fact that Finnish industry, in spite of all adverse circumstances, developed as vigorously as it has done during the last decades shows that the natural conditions in this country are favourable to industrial enterprise. This rapid progress will no doubt continue, as soon as ever international commerce is free again, and enables the full economic forces of the country to work without hinderance. Above all there is ample scope for the development of the wood and paper industry. Moreover there are many growing industries, for which the conditions of the country are most favourable, but these have not as yet got beyond the first stages of development. This is the case, for instance, with dry distillation, peat and stone. In the innumerable bogs, which cover an area of 10 million hectares, the

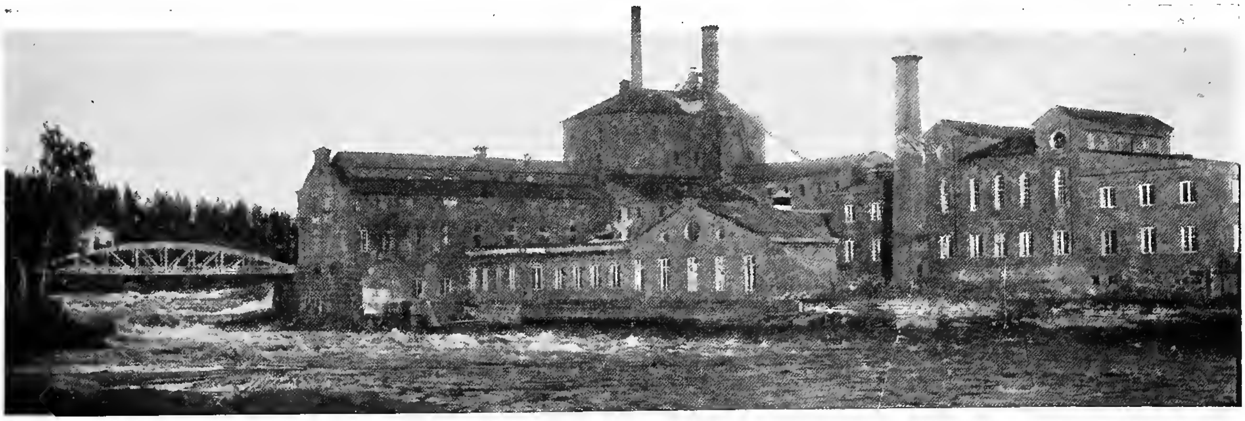


Fig. 85. Continuation of fig. 81. Part of the Kymi (Kymmene) paper-mills.

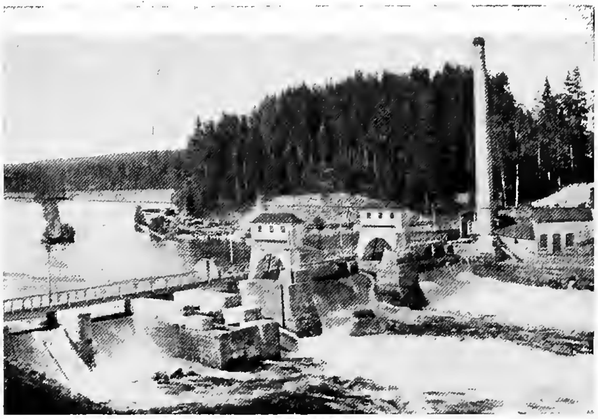


Fig. 86. Part of the Firm of Gutzeit in Enso, in the south-east of Finland. See figs 87, 90 and 91.

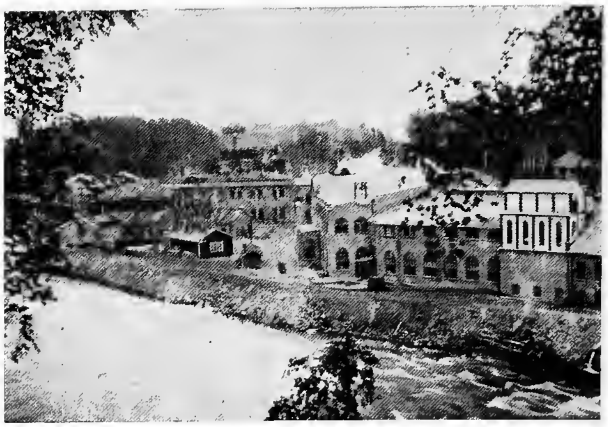


Fig. 87. Continuation of fig. 86. Gutzeit's Pulp-factory Enso, in the south-east of Finland.

peat industry has an almost inexhaustible source of raw materials. A variety of peat is produced from moss, which makes excellent bedding for cattle in stables and cow-sheds, and is also very useful for purposes of packing, as filling in and dividing off buildings. Peat for fuel is made into briquettes or powder as a substitute for coal and fire-wood.

The stone industry also has an infinitely rich supply of raw materials in this country. Among serviceable species of stone in Finland, the following may be mentioned: granite, diorite, gabbro, diabase, chalk-stone, pot-stone, marble and slate. With regard to granite, the red, grey, black and grey-blue varieties are found in Finland; of the first two colours especially there are many different shades. The exceedingly precious grey granite, which is known on the world market as Birkhall grey, also the famous »Balmoral red» and »Russian blue» granite are to be found here. These exquisite species of granite, together with marble and pot-stone, are in great demand for façade ornamentation and sculptural work i. e. monuments, statuary etc.

For dry distillation there are abundant supplies of raw materials to be found in the vast inland leaf-woods, the immense quantities of stubs and roots of the pine-forests and the waste from saw-mills

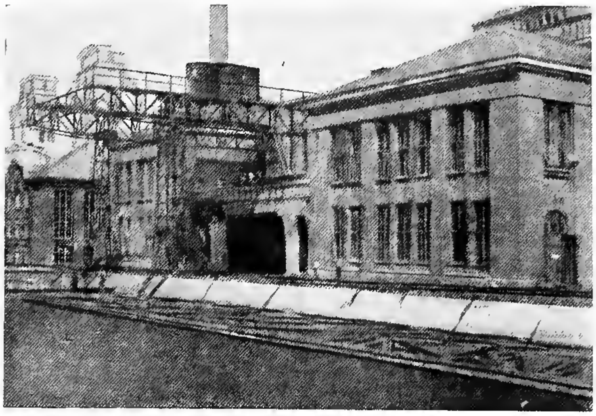


Fig. 88. Part of the Antti Ahlström Mills in Varkaus. See figs 89 and 92.

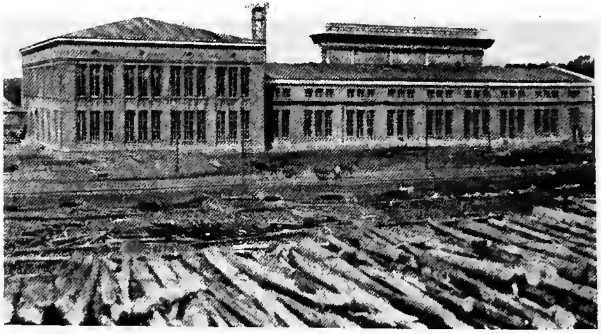


Fig. 89. Continuation of fig. 88. Part of the Antti Ahlström Mills in Varkaus.

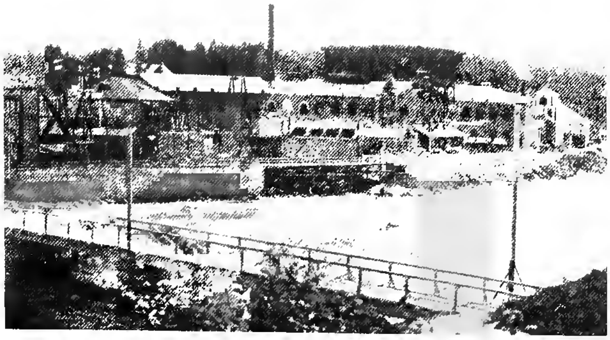


Fig. 90. Continuation of fig. 86. Part of the Industrial Society of Gutzeit in Enso, in the south-east of Finland. Paper-mill.

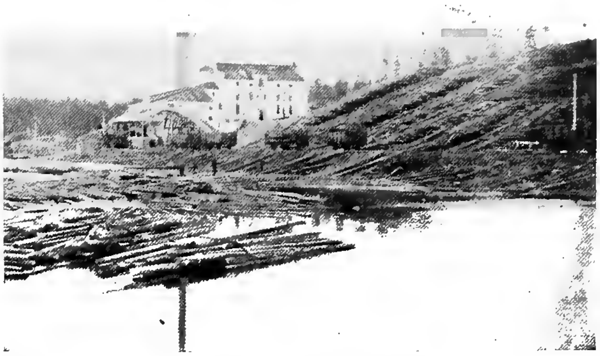


Fig. 91. Continuation of fig. 86 Part of the Industrial Society of Gutzeit in Enso, in the south-east of Finland. Saw-mill.

and bobbin-factories. By means of dry distillation it is possible to build up an extensive chemical industry. Also with regard to the mining industry, which is only in its infancy, the country contains great possibilities.

During the world war, these new branches have attracted more concentrated attention. In order to promote the development of native industries, The National Bureau of Finnish Industry was founded during the war. The Bureau is a special association of industrial establishments, whose business it is to encourage the formation of new branches of industry. Also during the war, a Central Laboratory was established for scientific, technical and chemical investigation and research, and a Finnish Peat Bureau, to promote the utilization and working of the peat-bogs. Among new enterprises, brought into being during the war, are some mines and dye-works. Finally it may be mentioned that quite recently a large Company has been formed for the production of Finnish raw sugar. Many of the old industries have developed considerably during the war. Especially in the cellulose industry, great improvements have been carried out, and new and large plants have been installed.

It is also probable that the mining of ore will play a considerable part in Finnish industry. The copper-bed of Mount Outokumpu, only laid bare some years ago, has already given good results, and

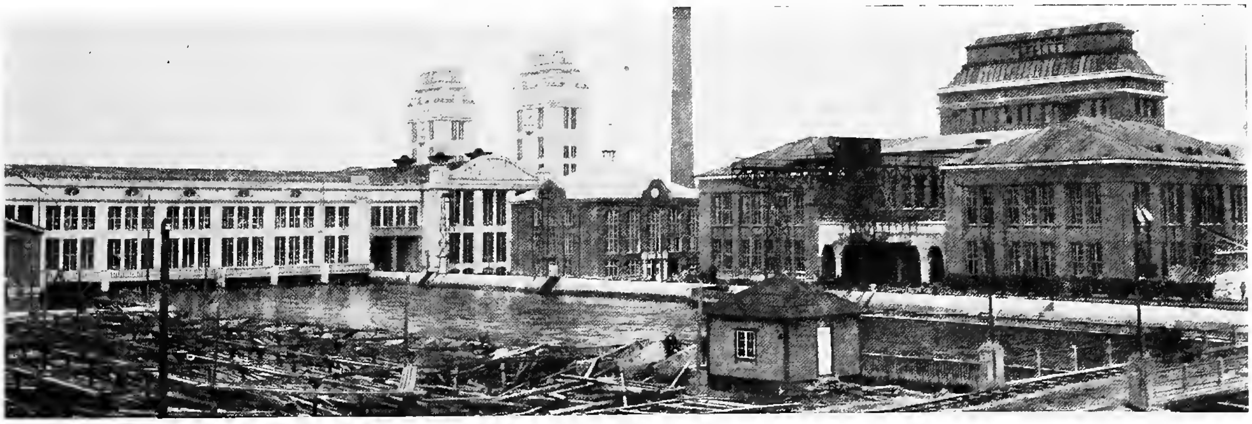


Fig. 92. Continuation of fig. 88. Part of the Antti Ahlström Mills in Varkaus.

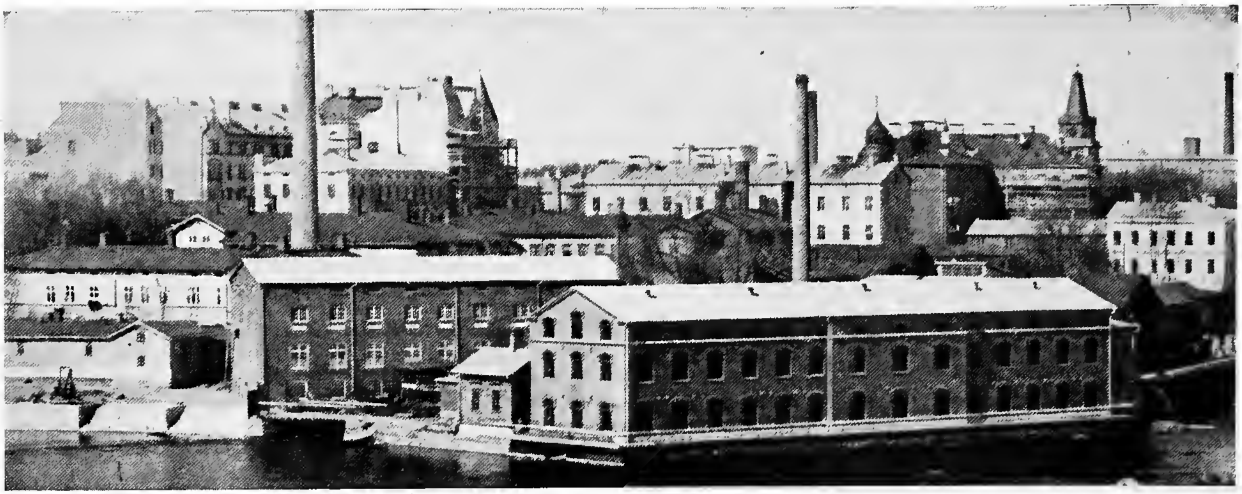


Fig. 93. Part of the industrial town of Tampere (Tammerfors). See figs 94—101.

recently a continuation of the same copper=field has been discovered and is also considered to be exceedingly rich; moreover, the investigations recently made in Northern Finland have tended to show that there are layers of iron under the marsh=lands. Amongst minor discoveries may be mentioned a layer of molybdena blende in Eastern Finland at Pielisjärvi and a layer of sulphureous stone at Kipasjärvi, also in Eastern Finland. If the vast forests and marshes disclose, as is possible, veins of precious minerals, there will in the future be abundant supplies of raw materials. Besides which the numerous waterfalls are capable of providing industry with the necessary power. According to calculations recently made, the accumulated water=power of the Finnish rapids amounts to about three million horse=power, if calculated at the average lowest water=level of the rivers, and to eleven million horse=power, if calculated above the average lowest water=level. Thus by damming up the lakes, a process which the exceedingly long water=courses render possible, it would be easy to increase the power yield of the rapids far beyond what it is at present.

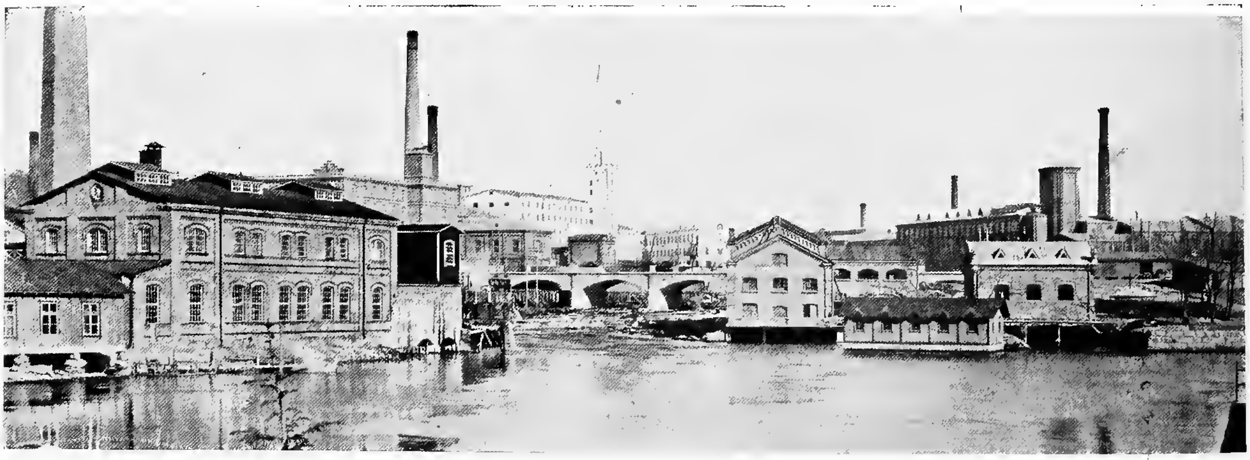


Fig. 94. Continuation of fig. 93. Part of the industrial town of Tampere (Tammerfors).

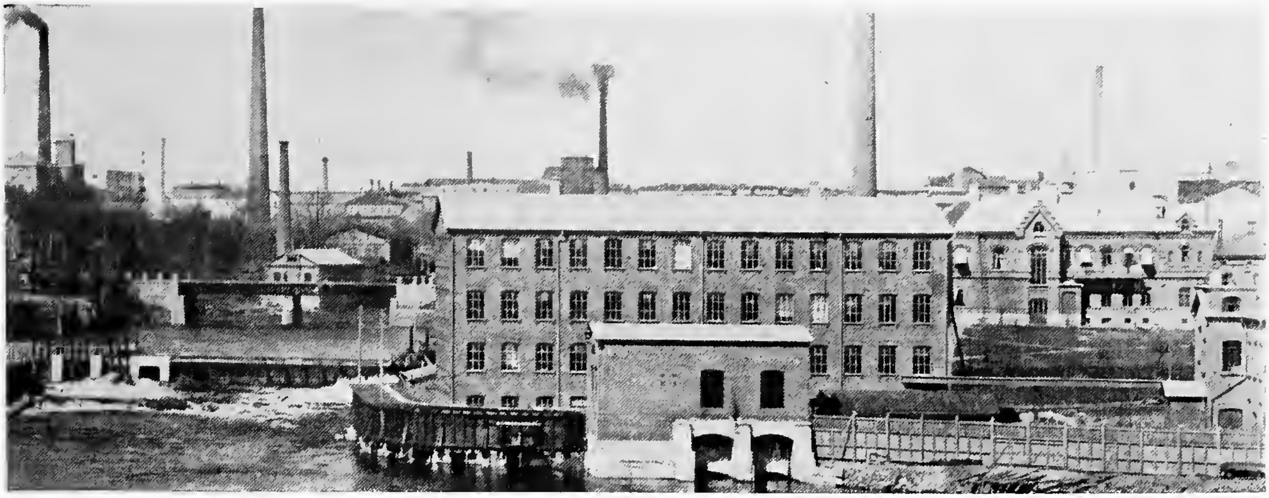


Fig. 95. Continuation of fig. 93. Part of the industrial town of Tampere (Tammerfors).

The most powerful rapids of Finland are: Pyhäkoski and Niskakoski in the Oulu=river, in the north, and Imatra in the Vuoksi=river in the south. The water=power of Pyhäkoski amounts at average low=water=level to 197,317 horse=power, but at average high=water level to 756,000 horse=power. The respective figures in the case of Niskakoski are 99,840 and 373,152, and of Imatra 141,312 and 164,373. The roar of the great falls at Imatra is heard at a distance of six kilometres. The river Vuoksi, which is a continuation of a vast system of the lakes of Saima, has, besides Imatra, a great number of other water=falls running towards Ladoga; their hydraulic power is estimated at 516,000 H. P.

Up to the present only a minimum of the hydraulic power of the rapids has been utilized for industrial purposes.

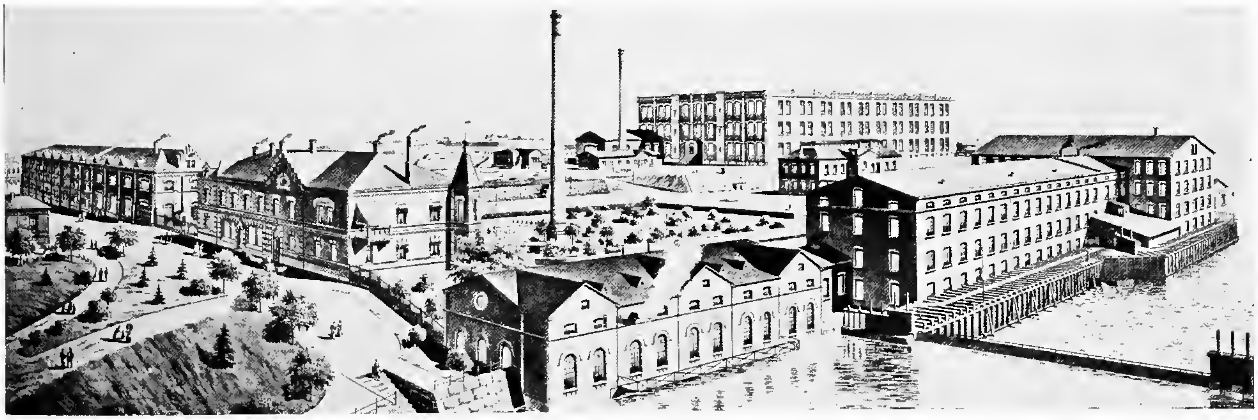


Fig. 96. Continuation of fig. 93. The linen manufactory in Tampere (Tammerfors).

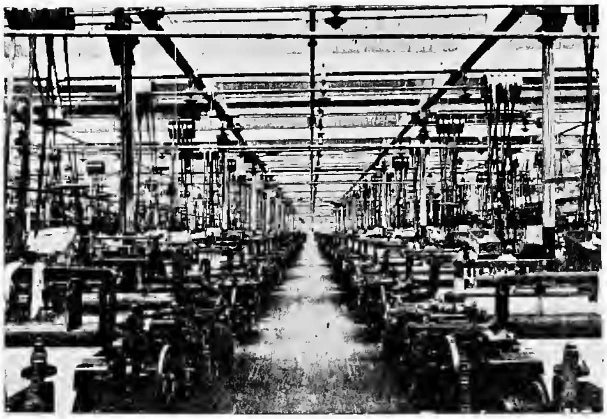


Fig. 97. Continuation of fig 93 Weaving-room in the cotton-factory of Finlayson and Co. in Tampere (Tammerfors).

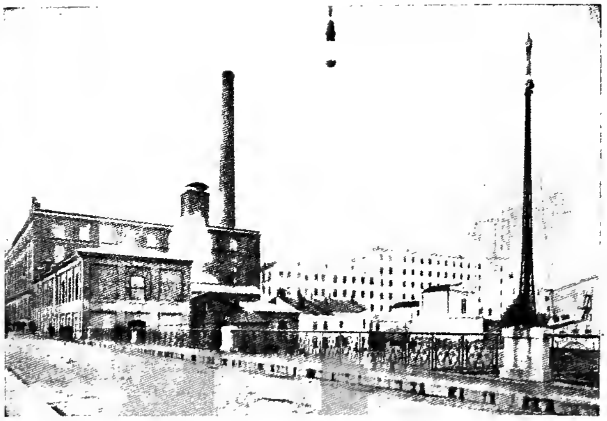


Fig. 98 The largest cotton-factory in the Northern countries, etablished in 1820, property of Finlayson & Co.

Foreign trade.

The foreign trade of Finland has developed as rapidly as her industry during the last decades. This progress, previous to the war, is shown in the following table:

	Average annual export			Average annual import		
1870—72	46,7	million	Finnish marks	71,3	million	Finnish marks
1880—82	116,8	»	»	153,6	»	»
1890—92	96,8	»	»	144,2	»	»
1900—02	195,7	»	»	240,1	»	»
1910—12	316,5	»	»	432,8	»	»
1913	404,8	»	»	495,4	»	»

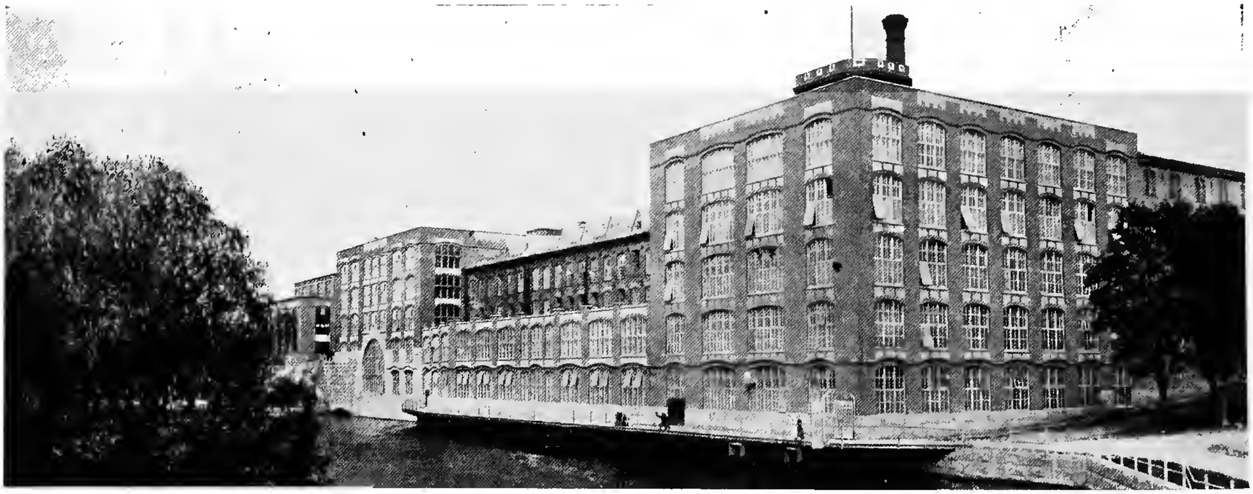


Fig. 99. Continuation, of fig. 93. Part of the largest linen spinning-mill in Northern Europe. The property of the Industrial society for linen and iron in Tampere (Tammerfors), etablished in 1850.

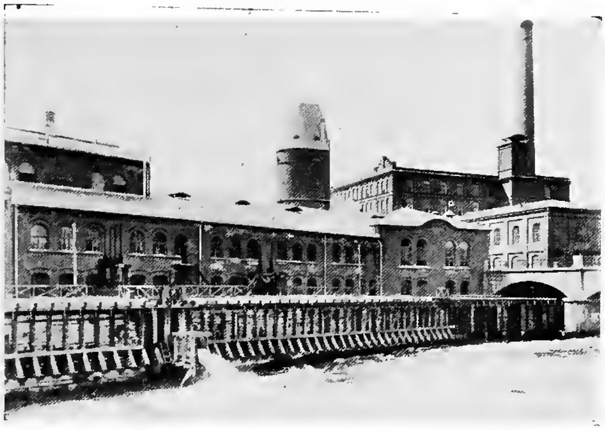


Fig. 100. Continuation of fig. 93. Paper-mill of the Society J. C. Frenckell & Son in Tampere (Tammerfors).

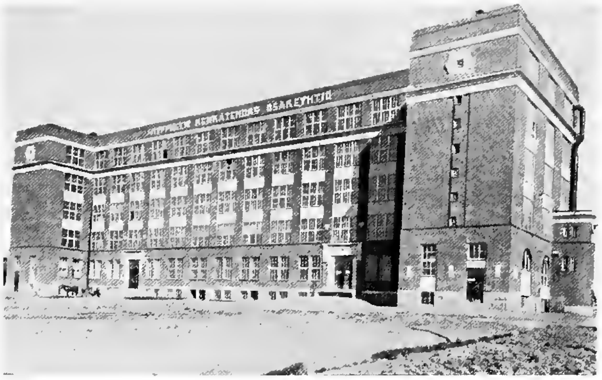


Fig. 101. Continuation of fig. 93. Boot-factory of the Society Hyppönen in Tampere (Tammerfors).

While during the war the development was as shown below:

	Export			Import		
1914	285,2	million	Finnish marks.	380,2	million	Finnish marks.
1915	266,5	»	»	578,4	»	»
1916	510,6	»	»	962,8	»	»
1917	444,9	»	»	1,231,9	»	»
1918	226,8	»	»	504,6	»	»
1919	873,1	»	»	2,505,4	»	»

As is seen by the above figures, import considerably exceeds export. However, on a proper examination of the particulars, it will be seen that a surplus import is essential to the promotion of native industry. By classifying the imports into groups of: a) raw materials and semi-manufactured goods, b) machinery

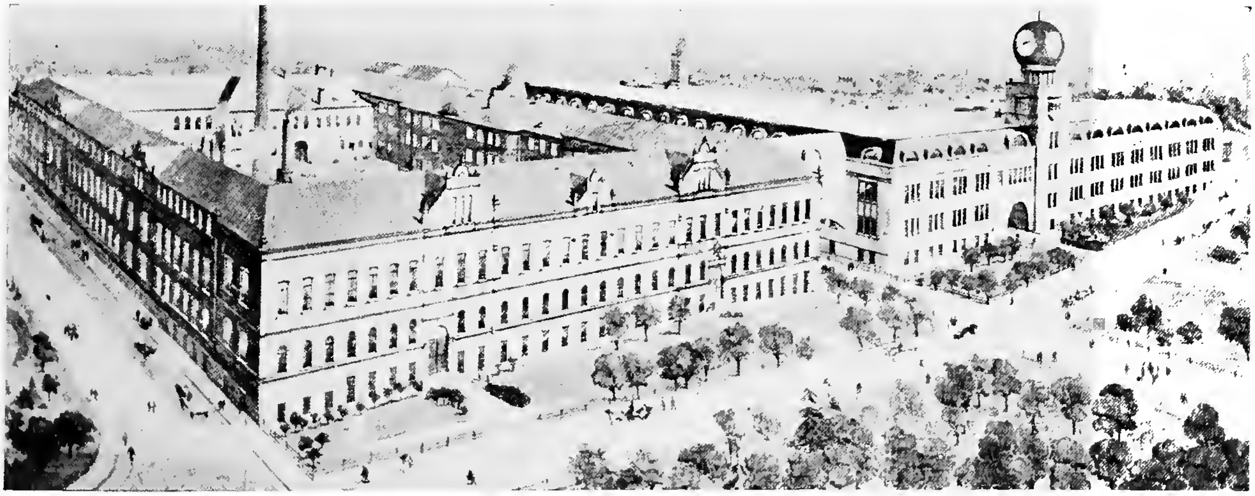
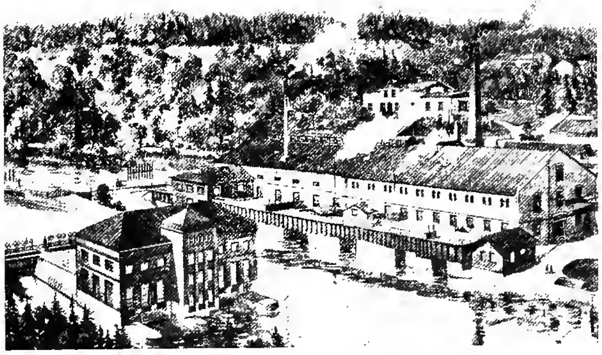


Fig. 102 The largest tabacco-factory in Northern Europe, in Jakobstad (Pietarsaari), founded in 1760. Property of the Society Ph. U. Strengberg & Co. Branches in Hernösand, Sweden, Christiania, Norway, Copenhagen, Denmark, Petrograd, Russia.



Fig, 103. Part of the Fiskars' cutlery works, founded in the XVIII century.

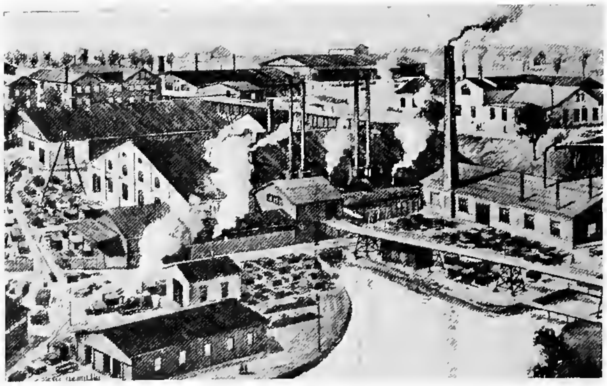


Fig. 104. Continuation of fig. 103.

and transport=vehicles etc., c) other industrial products and d) food stuffs and beverages, the following results are arrived at:

	1911—13	1914	1915	1916
	Million Finnish marks.			
Raw material and semi=manufactured goods	150,7	111,5	199,3	374,6
Machinery and transport=vehicles	43,8	41,6	31,5	73,5
Other industrial products	88,3	65,2	65,7	140,2
Foodstuffs	187,2	161,9	281,9	374,5

The value of imported raw materials, semi=manufactured goods, machinery and transport=vehicles has risen from 41,4% of the total value of imports in the years 1911—13 to 46,5% in 1916. In the years 1887—89 the corresponding percentage was only 32,3. There is a marked tendency that imports required for the development of native industries are increasing and are steadily becoming the largest part of the total import.

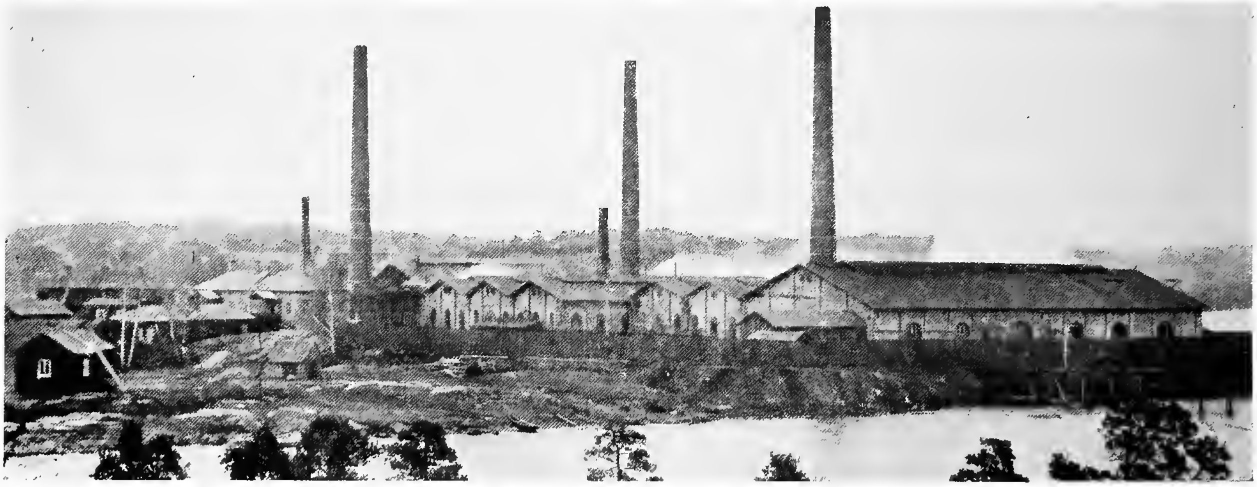


Fig. 105. Part of the metallurgical factory Dalsbruk (Taalintehdas), founded in the XVII century.

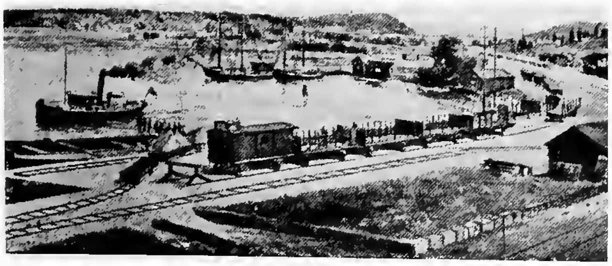


Fig. 106. Continuation of fig. 103. The metallurgical factory's harbour Fiskars.

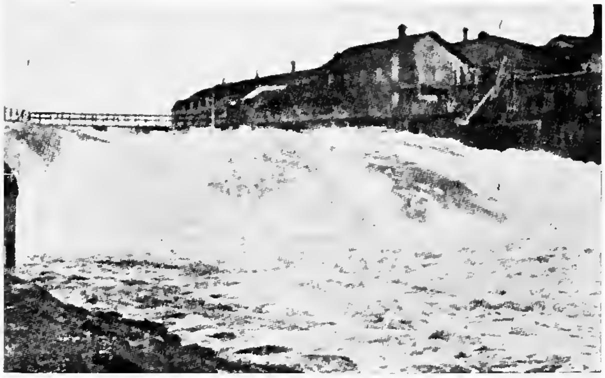


Fig. 107. Part of the metallurgical factory Billnäs (Pinjainen), founded in the XVII century.

The most important pre-war imports were:

	1911	1912	1913
	Million	Finnish	marks.
Cereals	101,0	87,3	99,0
Colonial produce	53,7	57,9	55,3
Hides and leather	14,3	18,9	22,1
Plants and seeds	21,7	20,6	22,9
Spinning materials	22,9	24,7	27,5
Textiles	24,8	26,3	25,8
Minerals and clays	20,8	26,0	29,5
Metals and alloys	41,5	44,4	37,2
Machinery	23,7	28,0	33,1

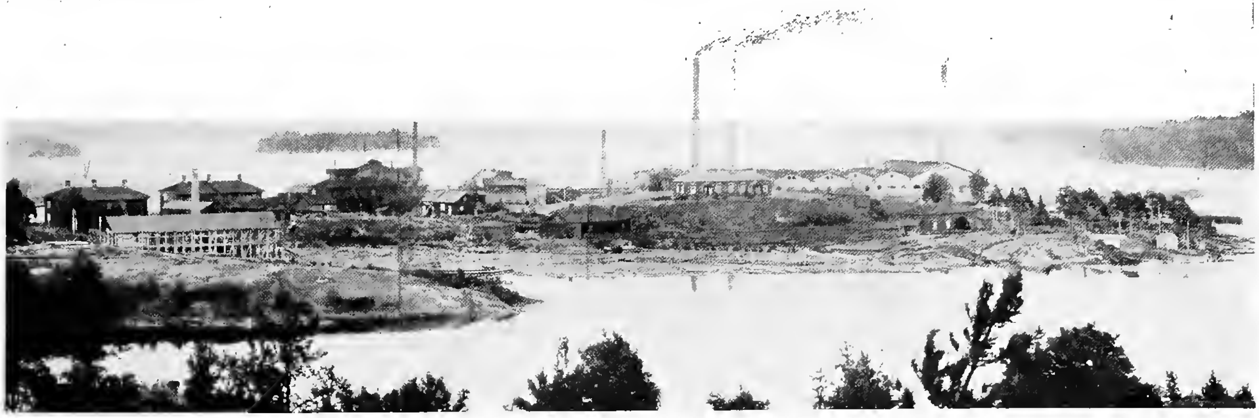


Fig. 108. Continuation of fig. 105. Part of the metallurgical factory Dalsbruk (Taalintehdas).

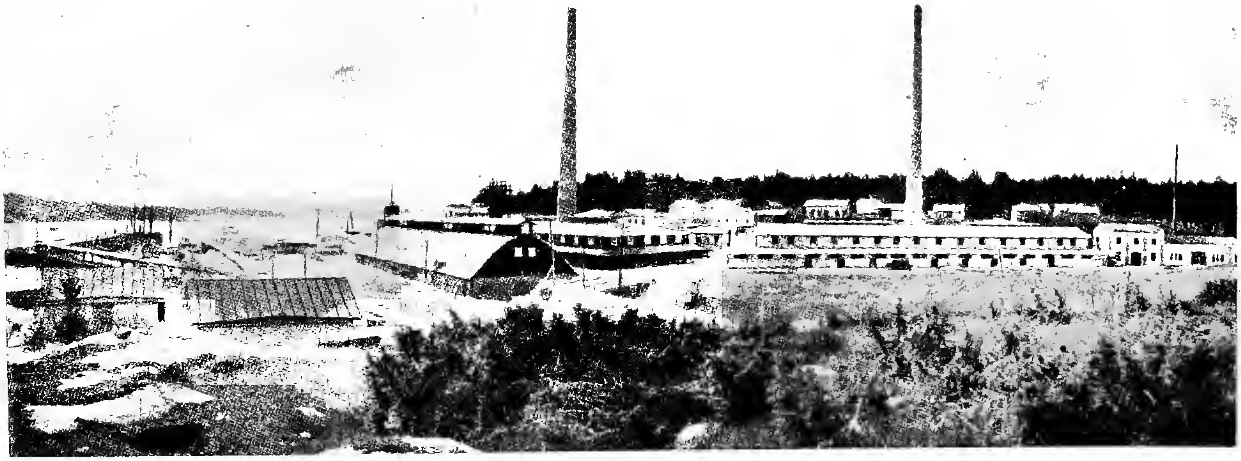


Fig. 109. Lime-stone quarry and cement-works in Pargas (Parainen). General view

The most important pre-war exports were:

	1911	1912	1913
	Million	Finnish	marks.
Dairy produce	39,9	40,9	43,6
Fish	5,3	5,5	6,2
Wood goods	13,1	13,9	12,6
Hides, leather and leather goods	167,0	173,4	227,3
Pulp, paper and paper goods	58,2	65,0	71,3
Minerals, clays and	6,0	6,6	6,9
their products.	4,2	5,6	6,2

The chief Finnish exports are: wood goods, paper goods, butter and hides. While the main imports are: cereals, machinery, metals, coal, spinning materials, textiles, hides, oils, cattle fodder, coffee and sugar.

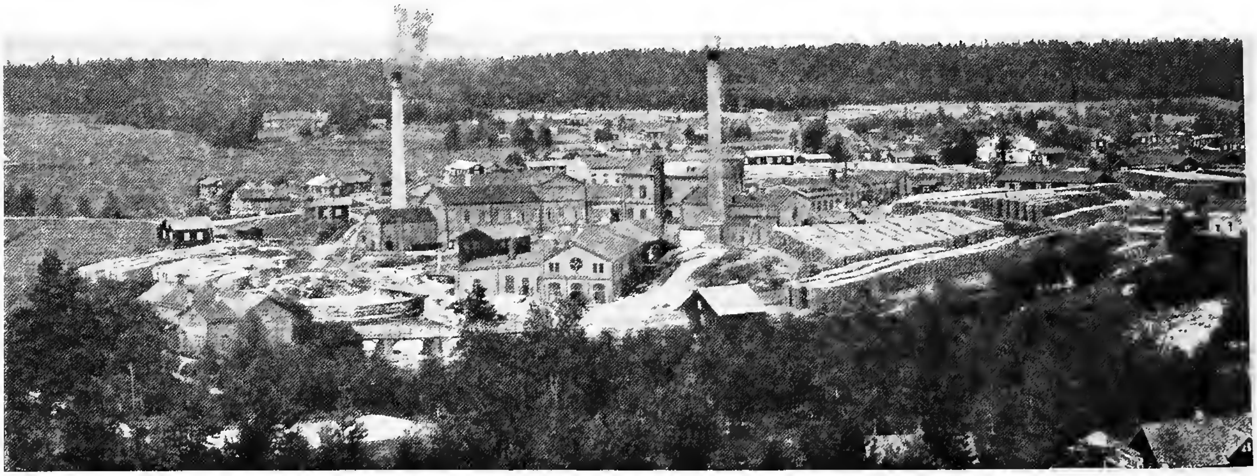


Fig. 110. General view of the paper-factory in Jämsänkoski. Property of the Society of Jämsänkoski. See fig. 112.

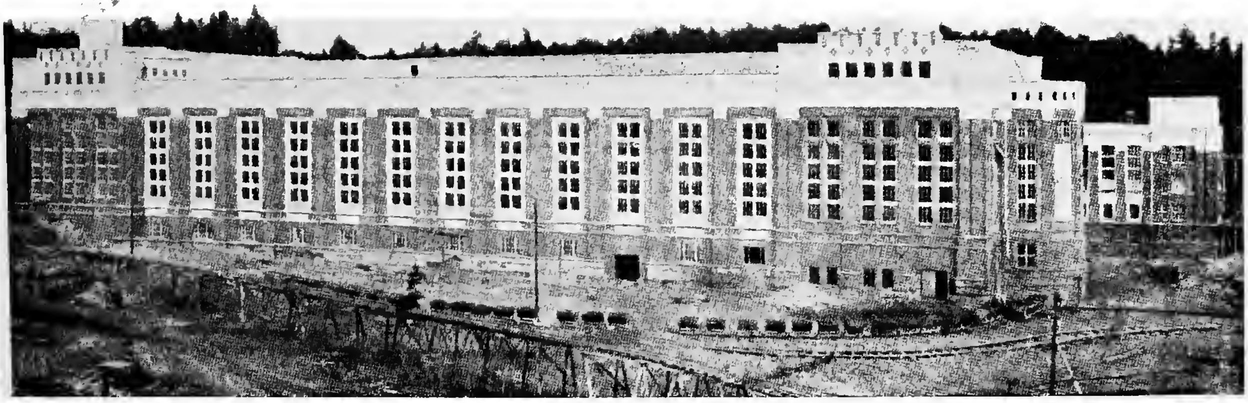


Fig. 111. Another view of Pargas cement-works.

In the years 1911—13 the average annual export of wood was:

Wood manufactures	12,9	million kilograms
Other wood goods, mainly saw-mill products	7,1	» cubic m.

The second group of wood exports may be divided in the following manner:

		1911	1912	1913
Firewood	cubicm	739,126	1,004,005	1,066,449
Wood goods (rough)	»	2,053,625	2,076,031	2,850,887
Hewn goods Planed goods	»	298,321	283,698	321,294
Sawn goods	»	3,152,730	3,422,846	4,209,563
		6,243,802	6,786,580	8,448,193

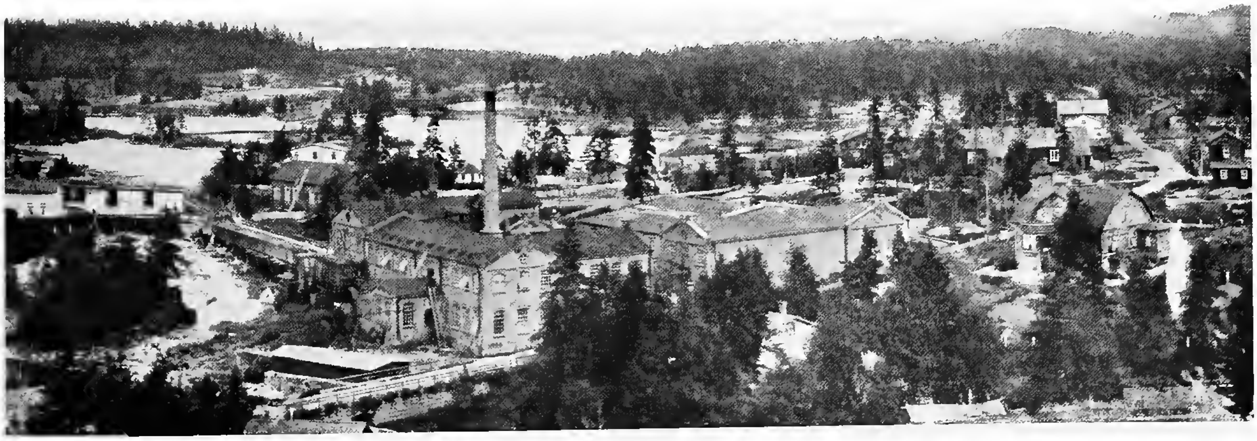


Fig. 112. General view of the paper-factory of Jämsänkoski. Property of the Jämsänkoski Society.

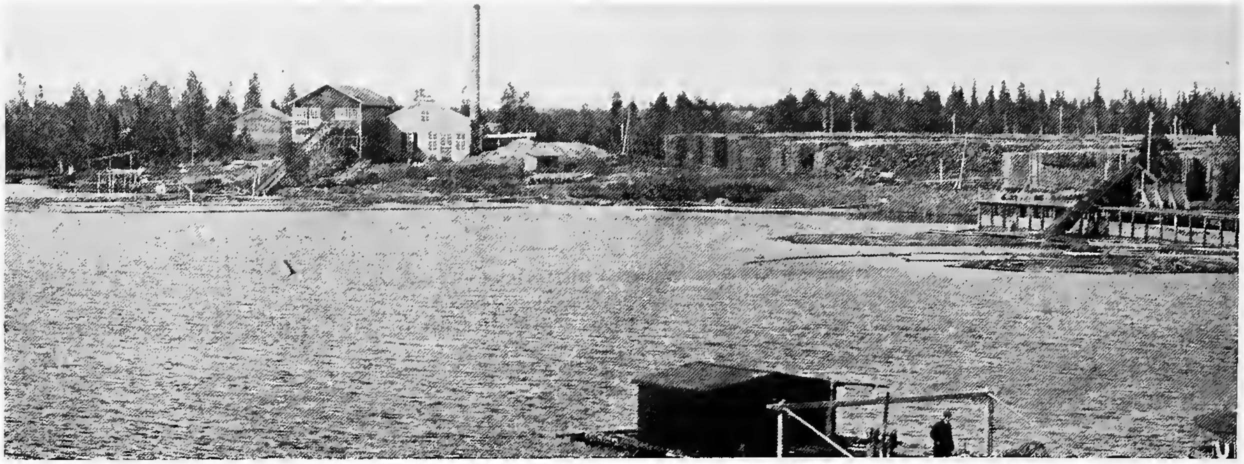


Fig. 113. The great wood-deposits of the Jämsänkoski factory.

The export of wood from Finland during 1911—13 exceeded that of Sweden in cubic contents. The amount of hewn, planed, and still finer quality goods has been increasing year by year.

Products of the paper-industry were exported from Finland in 1911—13 in the following quantities:

	1911	1912	1913
	million kilograms		
Ground wood-pulp	47,2	55,5	49,4
Chemical wood-pulp	67,1	82,7	77,1
Cardboard	47,1	52,6	53,8
Paper	123,4	129,5	145,6
Wall-paper	0,6	0,6	0,7

The quantity of cardboard exported from Finland, previous to the war, was nearly double that of Sweden, paper also was about $^3/_4$ of the quantity exported from Sweden.

The following table of import and exports shows Finland's chief connections in international commerce:

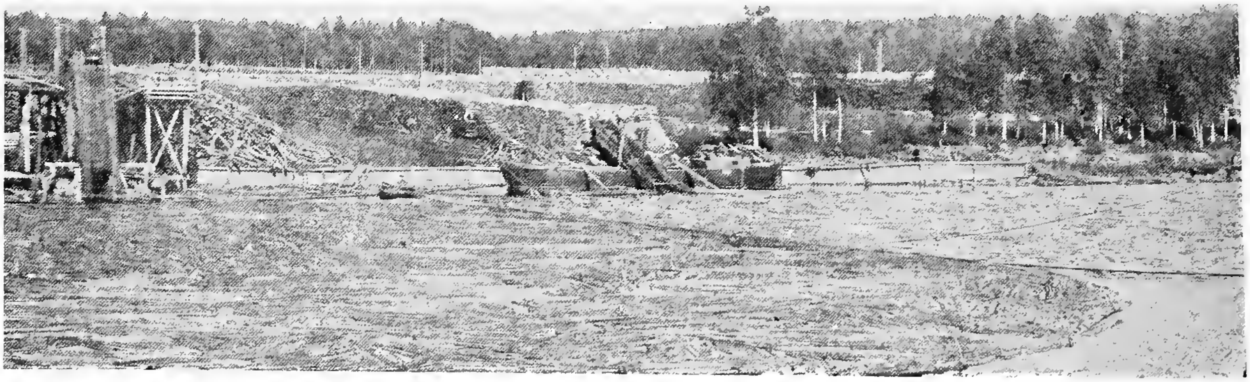


Fig. 114. Great wood-deposits of the Jämsänkoski factory. See preceding and following figs.

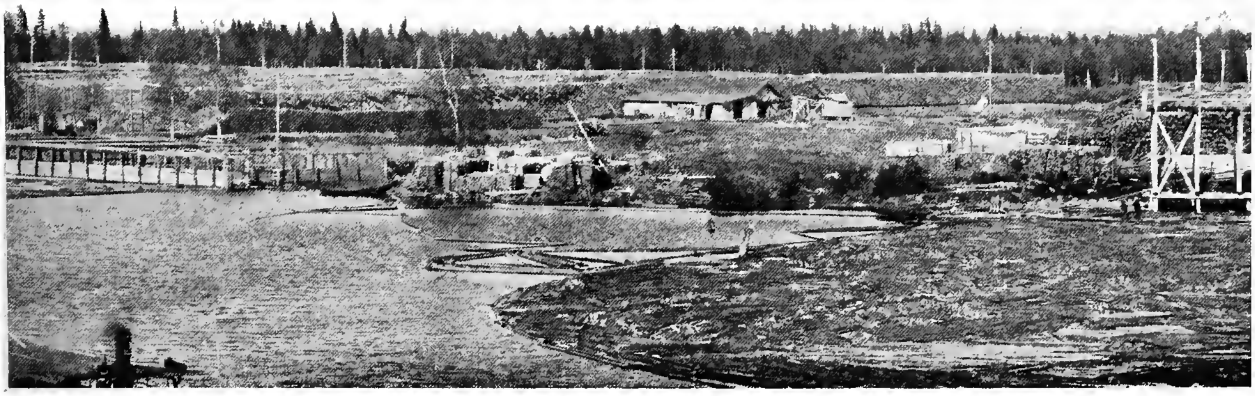


Fig 115. Great wood-deposits of the Jämsänkoski factory. See preceding and following figs.

	Import	Export
	Average for the years 1912-13 in millions of marks	
Germany	194,6	50,4
Russia	135,3	106,0
England	64,5	98,1
Sweden	26,4	15,9
France	7,3	33,3
Holland	9,8	18,2
Belgium	7,3	18,1
Spain	2,5	10,8
Norway	0,6	1,4
Italy	1,7	0,2
Africa	0,2	7,0
East-Indies	2,0	—
South-America	0,7	0,0
United States of America	0,0	—
Australia	0,0	—

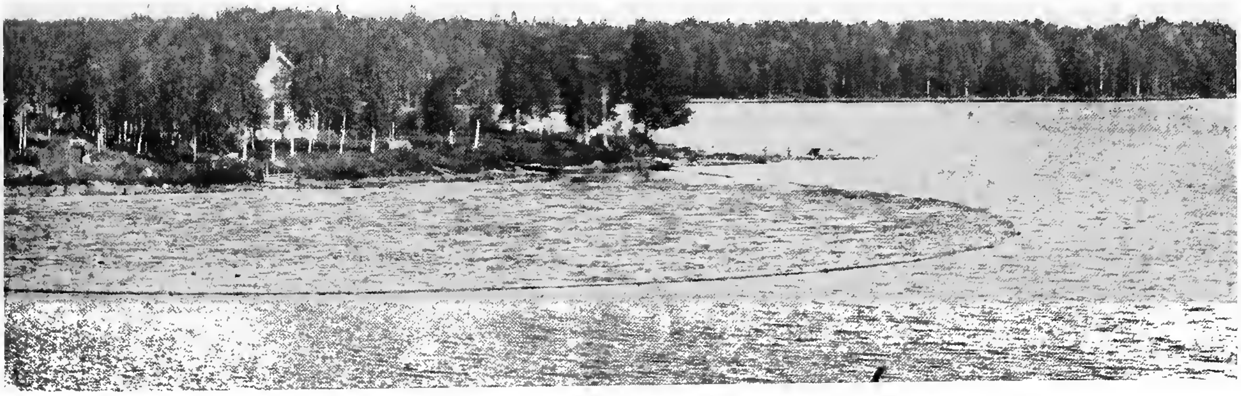


Fig. 116. Great wood-deposits of the Jämsänkoski factory. See preceding figs.

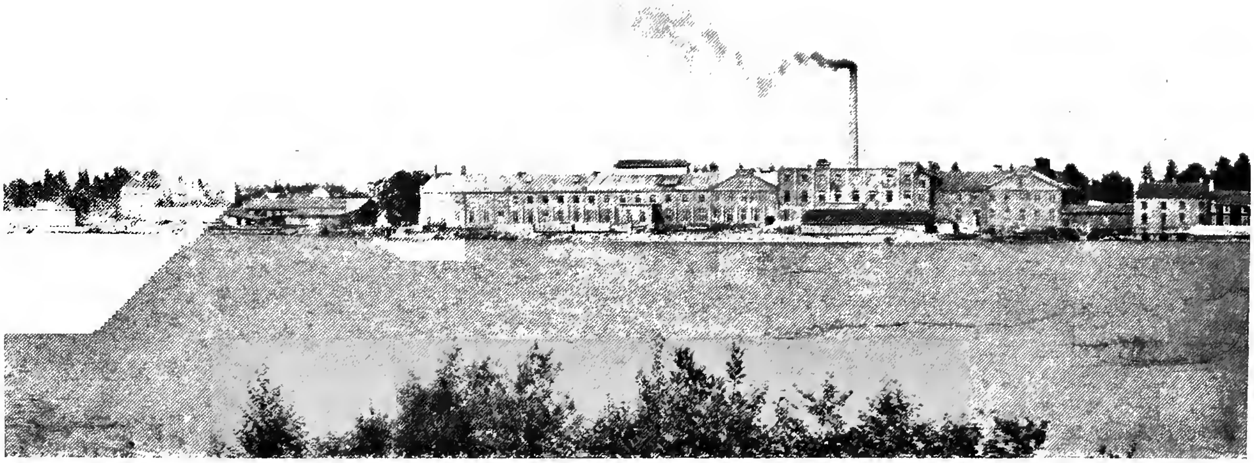


Fig. 117. Factory of Mänttä. Property of the Firm of G. A. Serlachius

Although before the war most of Finland's imports came from Germany, a large portion of these, however, were actually goods from more distant countries, which were merely being forwarded by German agencies and especially Hamburg.

Thus according to statistics, in 1913, among other goods, the following were forwarded to Finland via Hamburg:

	Finnish imports forwarded via Hamburg during 1913
Wheat-flour	46,8 million marks.
Coffee	12,9 » »
Raw hides	5,5 »

Further, during 1913, the following goods of American and French origin also passed through Hamburg to Finland: wool (5,4 mill. kg), tanning products (4,6 mill. kg), oil-cakes (4,3 mill. kg), dried

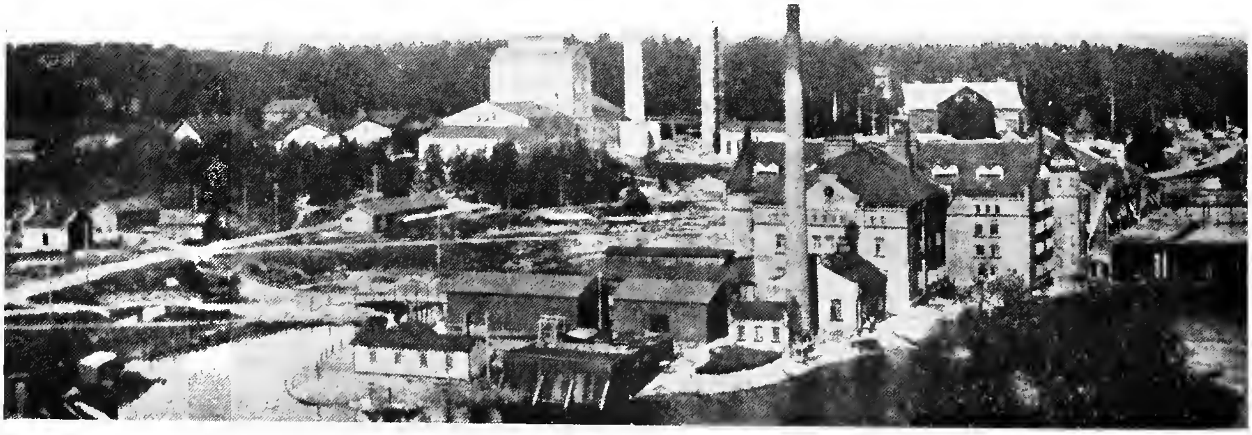


Fig. 118. Manufactory of Tainionkoski. Property of the Firm of Tornator

Manufactory of paper and mechanical wood=pulp, saw=mill, private railway.

plums and raisins (1,6 mill. kg), rosin (3,3 mill. kg), cocoa=nut= and palm=oil (0,9 mill. kg), india=rubber and guttapercha a. s. f.

Also before the war a large portion of Finnish imports passed through Scandinavia to Finland.

Goods imported from America during 1913 amounted to 50—60 million marks, according to the prices and rate of exchange of the time.

Already during the war attempts were made to do away with these intermediary agencies. Two joint=stock companies, with several millions capital, were started, for direct trade with America — The Finnish American Line and the Transoceanic Trading Co.

Also several other trading companies were promoted in order to establish direct connections with France, Italy, Spain, and America.

Together with foreign trade internal trade has also made great progress in recent years. Thus the number of joint=stock companies with a capital of at least 100,000 marks has been more than doubled

half of the shares belong to the State. Paper and mechanical wood=pulp factory.

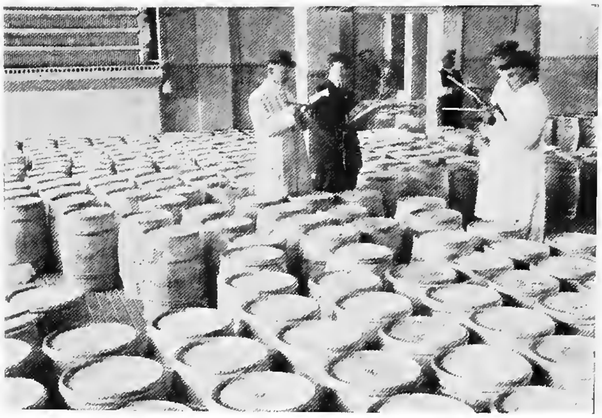


Fig. 119. Quantity of butter-barrels in Valio's shop.

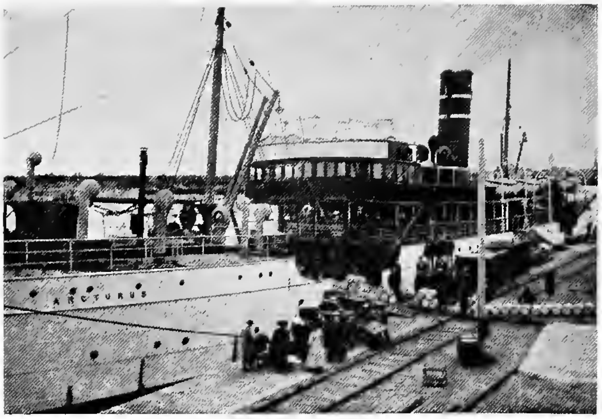


Fig. 120. Loading s/s Arcturus with barrels of butter for exportation.

during the last ten years. In 1907 there were in Finland 108 such companies, in 1917 their number had risen to 225. The number of companies with a capital of at least 500,000 marks has increased proportionately even more. In 1907 there were only ten such companies, while in 1917 there were forty. Co-operative societies also increased rapidly in number. The turn-over of the co-operative stores amounted in 1918 to about 480 million Finnish marks. The central co-operative organizations especially have made considerable progress. Thus for instance the turn-over of the Central Co-operative Stores of the Finnish co-operative societies rose in 1918 to 107,7 million Finnish marks. The turn-over of the Central Co-operative Society »Hankkija» was 78,3 millions, that of the Finnish Co-operative Wholesale Society 14,4 million Finnish marks. Among other co-operative organizations we may mention »Elanto», caterers and provision-dealers, whose turn-over was in 1918 as much as 34 million marks. This organization also possesses the largest restaurant for the working classes in the Northern Europe.

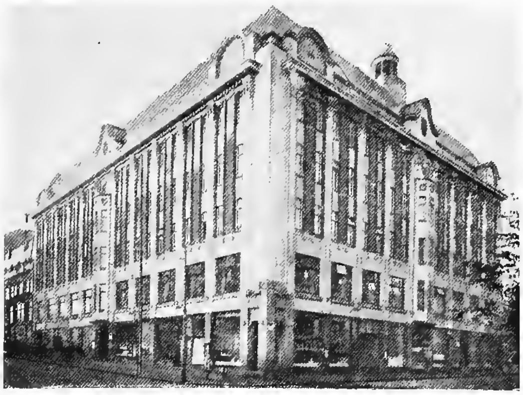


Fig. 121. One of the numerous establishments of the Co-operative Stores Elanto.

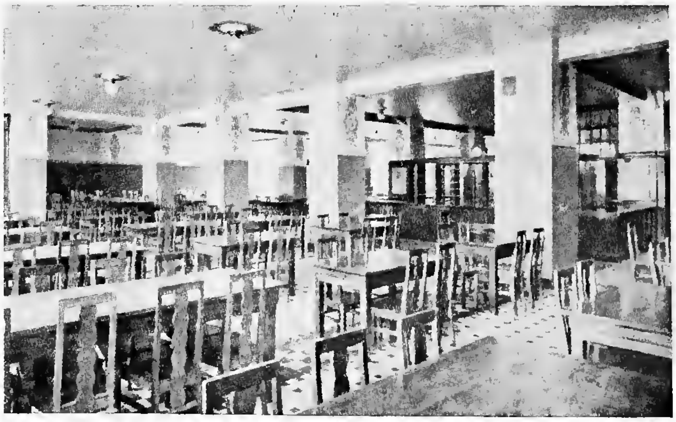


Fig. 122. Interior of one of the restaurants for the working classes in the Elanto Co-operative Stores

Elanto owns about thirty establishments in the towns, two large country-estates, a steam-bakery, a dairy, a factory for drying vegetables, a mechanical workshop, besides saddlers and tailoring departments, several cafés, restaurants, groceries and bakeries. The members have also their own organization.

Fig. 123. Railway=bridge at Tampere (Tammerfors).

Fig. 124. Railway=bridge built over the Oulunjoki.

Railways and Roads.

The first railway in Finland was opened in the year 1862. Since then the railways have developed as shown below:

	Length of railway=lines in kilometres	Number of stations and stopping places	Number of locomotives	Number of carriages	Number of goods=vans
1865	111	14	—	—	—
1875	670	61	70	166	1,563
1885	1,211	109	115	295	2,494
1895	2,424	202	191	487	4,853
1905	3,321	315	445	944	11,665
1915	4,034	397	566	1,222	16,334
1919	4,318	419	550	965	13,392

All the towns of Finland, with but two or three exceptions, are immediately connected with the railway system. Further it is worthy of notice that the railways of Finland are not limited to the

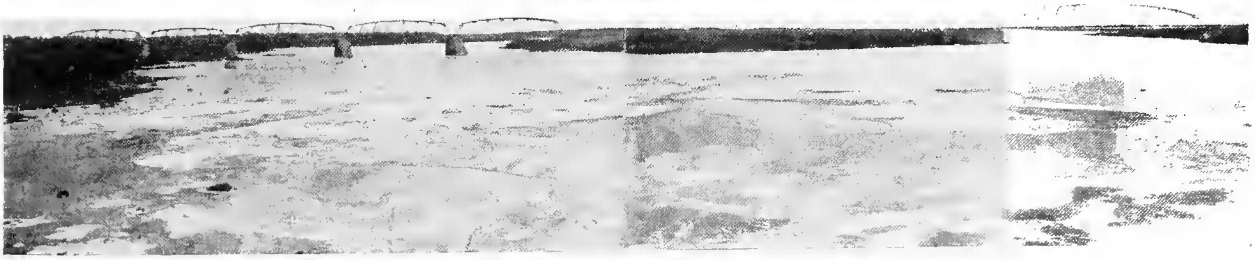


Fig. 125. Railway=bridge built over the Kemijoki.

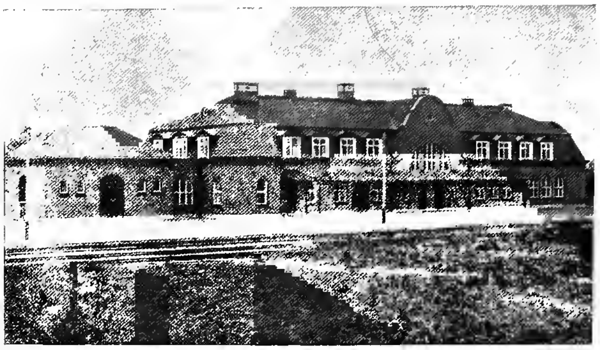


Fig. 126. Station, built of bricks, in a provincial town.

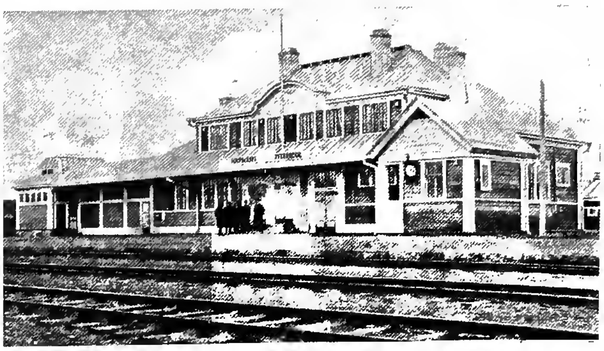


Fig. 127 Station, built of wood, in the country.

southern parts, i. e. the most thickly populated districts of the country, but, with a view to the future, pass to a considerable extent through large uncultivated areas, thus linking up the furthest outlying districts and affording easy transport for all natural wealth. This is clearly seen by glancing at the railway map of Finland. From north to south Finland is intersected by three main lines, one in the west, the second in the centre, and the third in the east. All these extend over lonely forest regions, especially the two last, which are laid almost entirely through vast forest districts. The significance of these railways, passing through uncultivated districts, has already been felt and the country's economic progress will on this account doubtlessly be much greater in the future.

The railways of Finland are almost entirely owned by the State. Only some 315 kilometres belong to private concerns. All the State railway-lines, and most of the private ones, have the standard gauge of 1,524 metre. The line from Helsingfors to Rajajoki on the Russian frontier has a double track. All railway-bridges, spanning rivers or otherwise, are made of steel and built on stone foundations. The goods traffic of the State railways is illustrated by the following table:

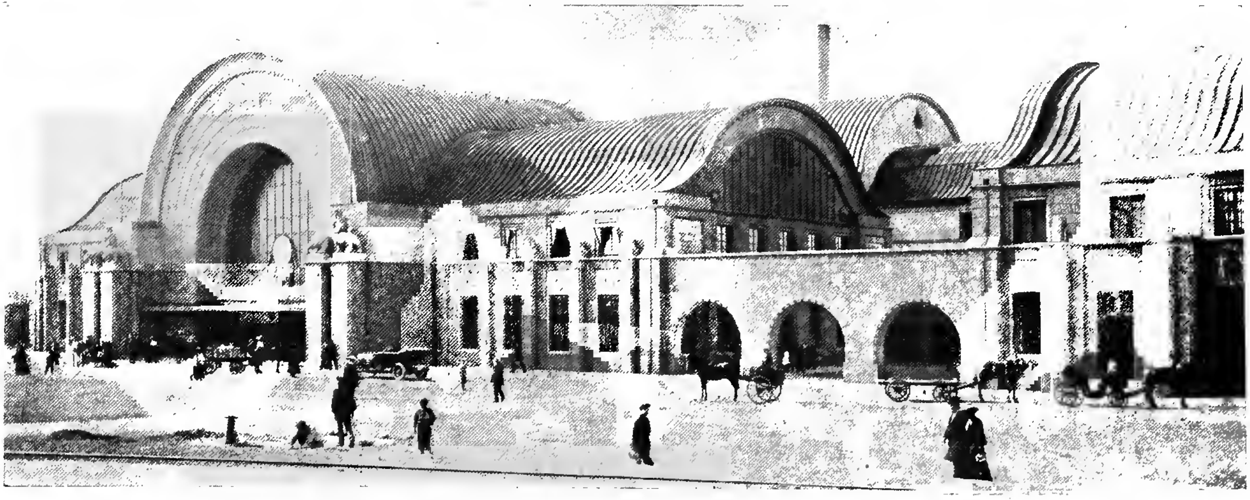


Fig 128. Station of Viipuri (Viborg).

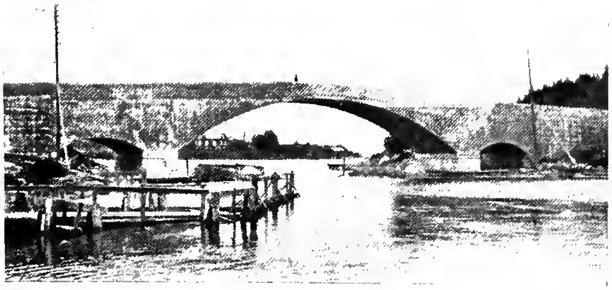


Fig. 129. Highroad=bridge in the interior of the country.

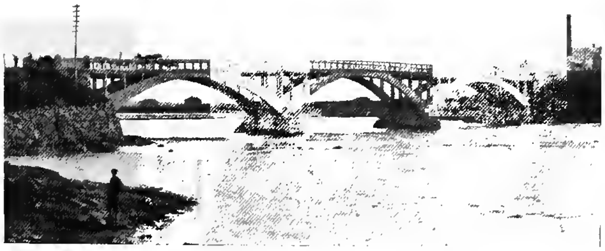


Fig. 130. Iron bridge in the interior of the country.

	Total amount of goods trans=ported. Tons.	Forest products, natural or manufactured	Cereals	Other agricultural products
1900	2,453,749	59,6 %	11,5 %	4,8 %
1905	2,786,875	59,1 »	9,0 »	5,7 »
1910	3,839,662	56,1 »	7,9 »	5,7 »
1915	5,167,009	43,5 »	9,3 »	8,3 »
1916	6,160,776	41,8 »	10,8 »	7,1 »

The road system of Finland dates back some centuries. There are two different kinds of roads in Finland, high=roads which serve for long distance traffic, and by=roads for local traffic. The length of the former is estimated at present to be some 31,000 kilometres and the latter about 20,000 kilometres. In 1905 there were 9,439 bridges in connection with roads, of these thirty five were of iron, 3,527 of stone, and 5,877 of wood. The high=roads of Finland can be compared with the best roads and macadamized ways of Central Europe. In the year 1916 there were in Finland 1,142 post=houses and 131 inns.

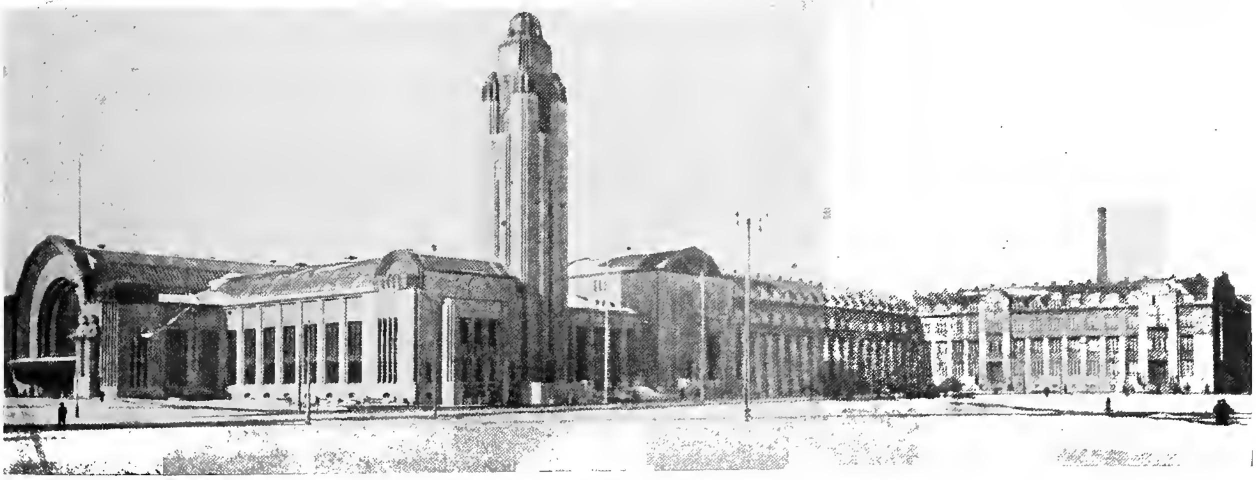


Fig. 131. The station of Helsinki (Helsingfors).

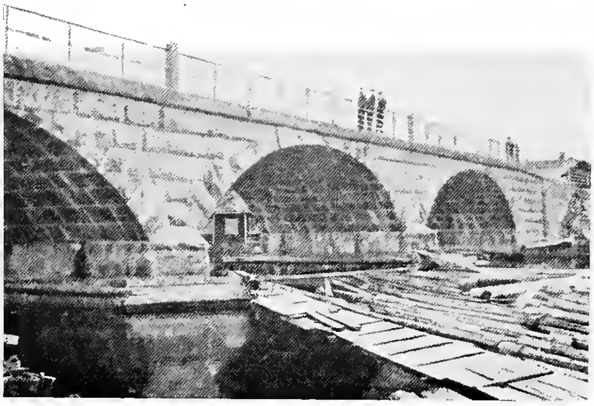


Fig. 132. Granite bridge, in the interior of the country.

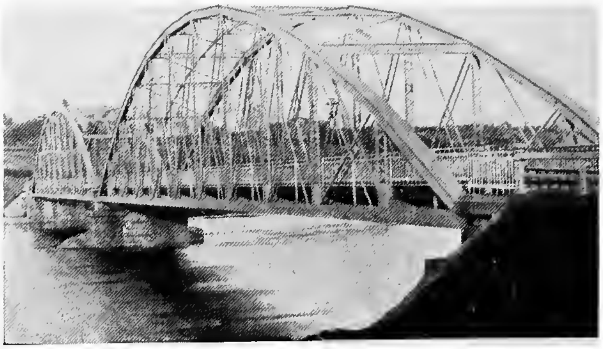


Fig. 133. Iron bridge, in the interior of the country

Water=routes.

Besides the railways and high=roads the water=routes play an important part in the traffic of the country. In former times they were the main lines of communication. In fact it was along them that colonization first penetrated into the interior of the country.

There is hardly any other country in the world which is so intersected by water as is Finland. In this »land of a thousand lakes» there are large or small water=routes everywhere. In the districts where the lakes are fewer, as for example near the coast, river adjoins river. These favourable natural characteristics have in the course of time been improved; certain rapids have been dredged, shallow waters deepened, and canals cut. At present the total length of the inland water=routes is estimated as below:

Buoy channels	3,600	km
» » for boats	2,900	»
Principal water=ways for floating wood	10,000	»

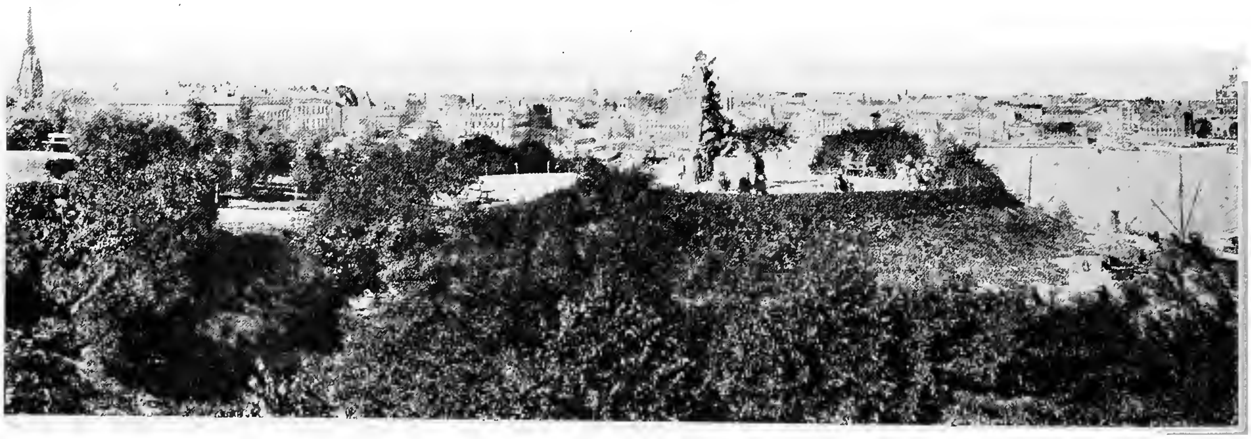


Fig. 134 a. One of the harbours of Helsinki (Helsingfors).

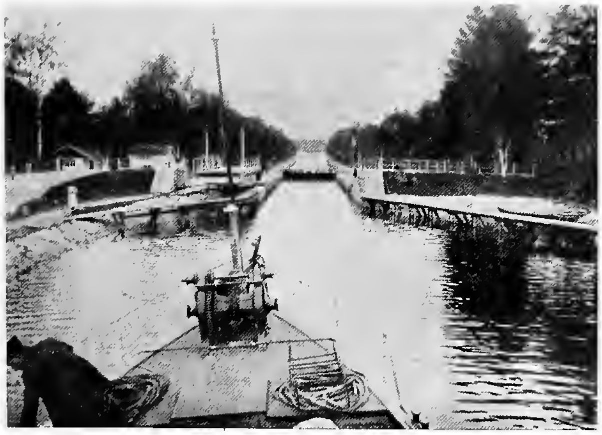


Fig. 135. Canal in the interior of the country.

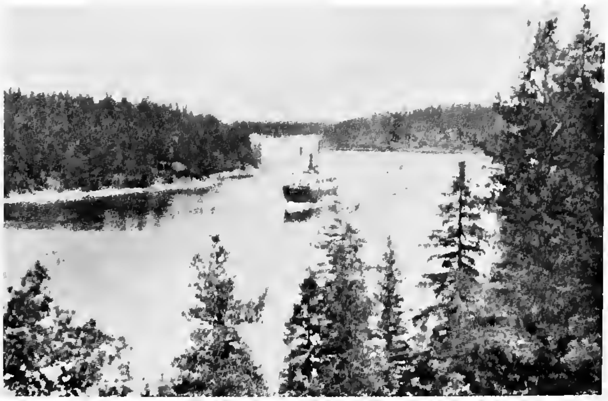


Fig. 136. Channel-type.

The canals of Finland are twenty four in number, and have altogether seventy locks. The largest canal is the Saima canal, completed in 1856. It connects the vast water-system of the Saima lakes with the sea. This canal has a length of 59,3 kilometres, 36,1 kilometres of which have been dredged, and has 28 locks.

From the earliest times the long sea-coast of Finland, with its excellent harbours, everywhere protected by the archipelago, has been a very important asset to traffic. It has helped to keep Finland in touch with foreign countries and greatly facilitates communication between different parts of the country itself.

All the towns in the country, both inland and on the coast, have good harbours. The most important seaports are: Helsinki (Helsingfors), Turku (Åbo), Viipuri (Viborg), Kotka, Hangö (Hanko), Rauma (Raumo), Pori (Björneborg), Vaasa (Vasa) and Oulu (Uleåborg). The length of the quays and their water-depth at these ports are as follows:

Fig. 134 b.

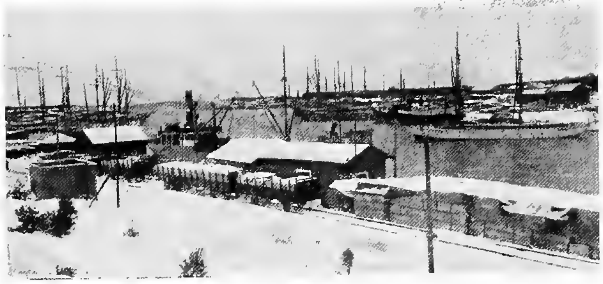


Fig. 137. Part of the harbour at Rauma (Raumo).

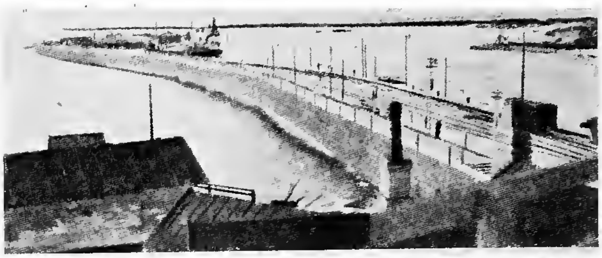


Fig. 138. Part of the harbour of Hangö (Hanko).

	Length of quays.		Length of quays, where water-depth is 7—8 metres.	
Helsinki (Helsingfors)	6,190	metres	974	metres
Turku (Åbo)	5,960	»	—	»
Viipuri (Viborg)	2,347	»	476	»
Kotka	7,613	»	658	»
Hangö (Hanko)	1,240	»	720	»
Rauma (Raumo)	1,770	»	—	»
Pori (Björneborg)	3,939	»	174	»
Vaasa (Vasa)	1,175	»	410	»
Oulu (Uleåborg)	3,660	»	—	»

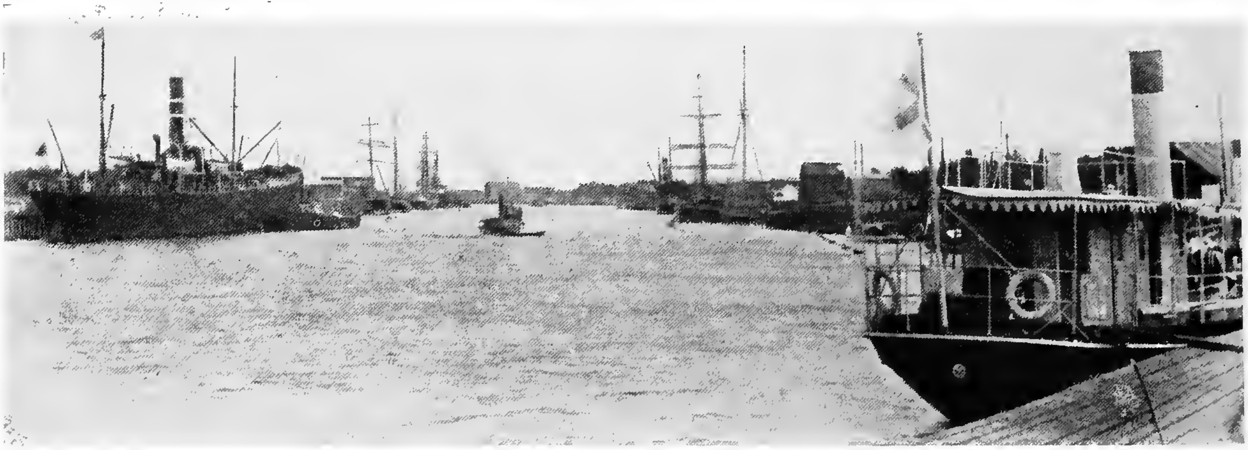


Fig. 139. Part of the interior of the harbour at Oulu (Uleåborg).

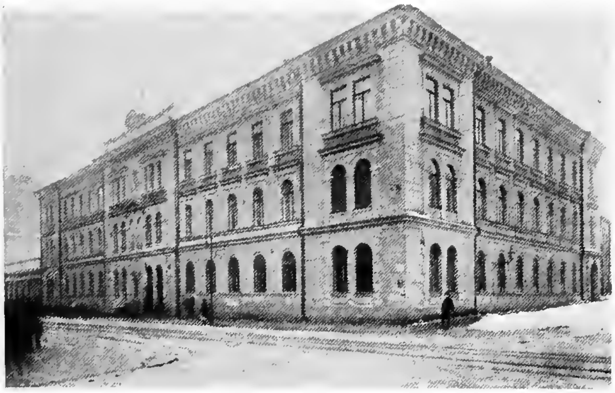


Fig. 140. General Post Office Helsinki (Helsingfors).

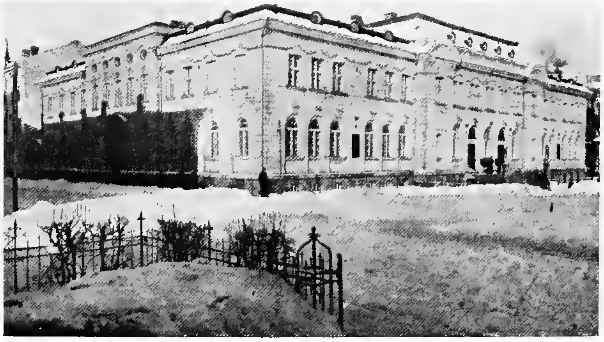


Fig. 141. General Post Office Viipuri (Viborg).

Postal, Telegraph and Telephone Services.

The public postal service in Finland dates from the year 1638. In the beginning of the eighteenth century the post=offices numbered twenty two, and in the commencement of the nineteenth century thirty three. During the last thirty years the number of post=offices and other post=stations has increased as shown below:

1890	421
1900	1,001
1910	2,045
1919	2,527

The regular postal service extends even to the most remote parts of the country. The distribution of the letter post is also general in the provinces. In 1917 this provincial service extended over some 35,654 kilometres.

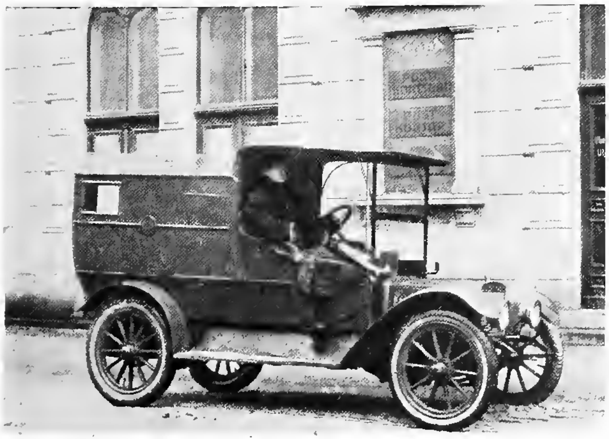


Fig. 142. Post=automobile outside the General Post Office, Helsinki (Helsingfors).

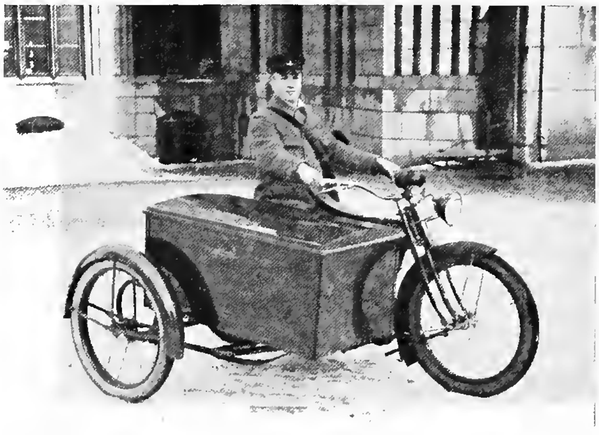


Fig. 143. Postman on his motor=cycle in Helsinki (Helsingfors)

Fig. 144. [Post Office in the country.

Fig. 145. Country postman.

The stage of development reached by the postal service in 1917 is illustrated by the following table.

		Average per head
Ordinary letters, post=cards, parcels, not including news=papers and periodicals	64,753,077	19,35
Newspapers and periodicals	119,473,154	35,70

Every inhabitant of Finland would according to this average receive one item by mail each week.

The first public telegraph was opened in 1855. The length of the telegraph lines in Finland is at present about 23,656 kilometres and extends as far north as Ivalo, embracing even the most distant forest districts. Along all the railway lines there is a double line of wires, and the telegraph stations number 397. (See map of communications). Finland is also connected with foreign countries by many cables.

The telephone was first used in Finland in 1882, when the first central station was opened. Since that time the telephone service in Finland has developed very rapidly. At present the total length of the telephone=lines in the country is 116,235 kilometres, of which 108,000 kilometres are the property of private companies and co=operative societies. (See map of communications).

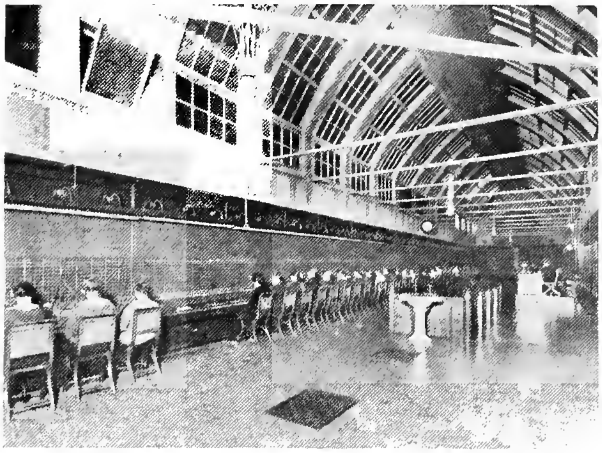


Fig. 146. Part of the great hall in the General Telephone Station in Helsinki (Helsingfors).

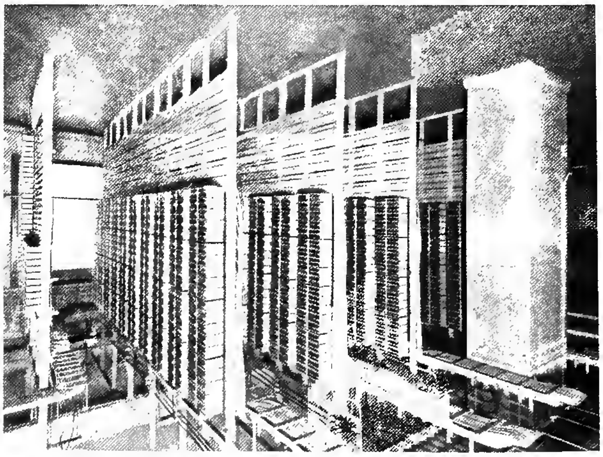


Fig. 147. Part of the hall with the underground call=boxes in the General Telephone Station in Helsinki (Helsingfors).

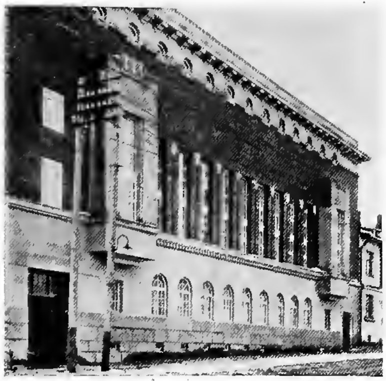


Fig. 148. Branch establishment of the great telephone net in Helsinki (Helsingfors).

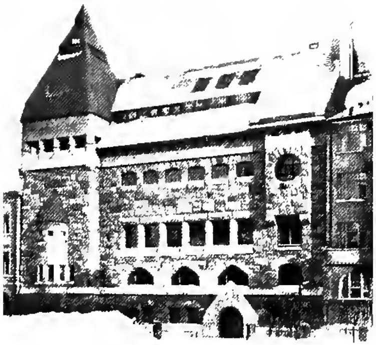


Fig. 149. General Telephone Station in Helsinki (Helsingfors).

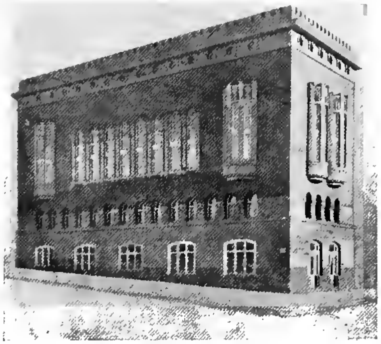


Fig. 150. Branch of the great telephone net in Helsinki (Helsingfors).

The telephone service also extends to the far away forest districts. For instance Paanajärvi and Kuolajärvi, respectively, at 66° and 67° northern latitude, are in communication with the rest of the world by telephone. At the same time the local telephone companies have been connected up to one another by means of inter=urban lines. Thus it is possible to speak by telephone from one end of the country to the other.

The main lines open out into numberless local branches. Through out a great part of the country every village of any importance has its own telephone central; and in general telephones are not restricted to large country estates, but are also found in the houses of the small farmers.

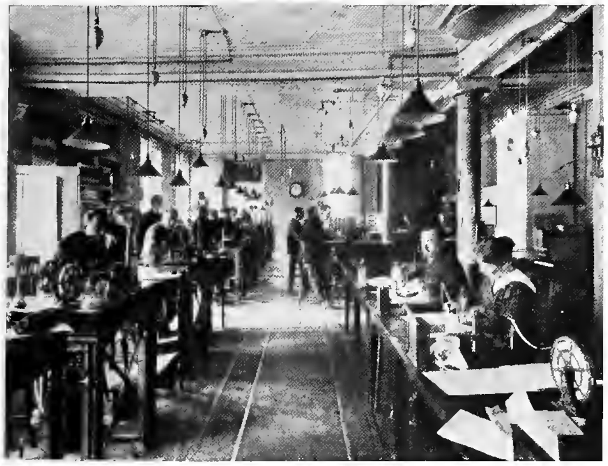


Fig. 151. Interior of the Telegraph Office in Helsinki (Helsingfors)

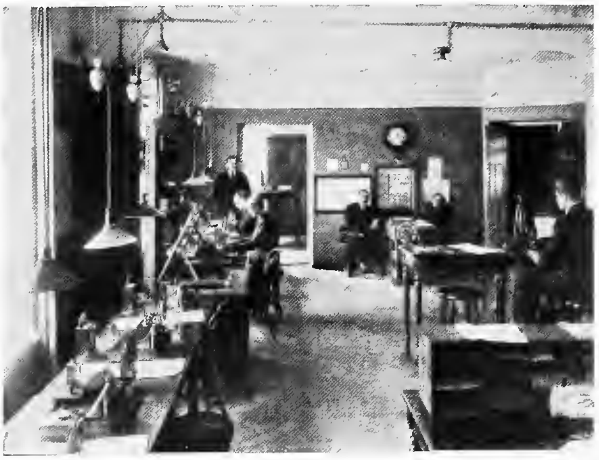


Fig. 152. Interior of the Telegraph Office in a provincial town.

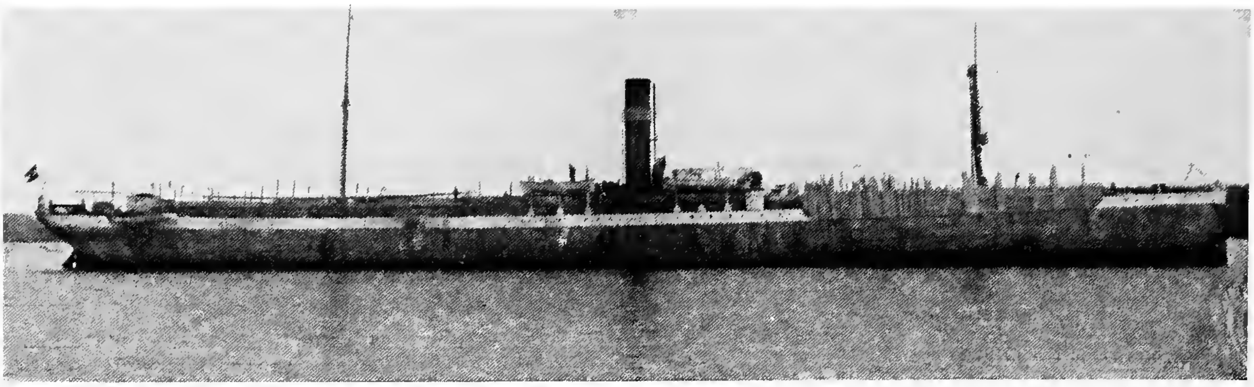


Fig. 153. Ocean steamship Hermonthis, the property of the Steamship Co. Ltd »Valtamerilaiva» in Uusikaupunki (Nystad).

The Merchant Service.

From the earliest times the Finnish people have interested themselves in navigation. The immediate proximity of the sea has made the sons of Finland skilful sailors, and the vast forests have yielded good and cheap material for ship=building. The art of building wooden ships attained even a high degree of perfection in olden times.

The golden age of Finnish navigation was however in the days of sailing=ships. Then it was that Finnish ships carried on trade in distant waters, and transported various cargoes for foreign nations; this proved for Finland an important source of income. After the advent and introduction of steamships the Finnish merchant fleet lost much of its former significance. However in recent times the construction of steamships has been commenced in Finland, and in the Finnish shipyards even large iron=concrete vessels for Transoceanic traffic have been built. The first steamboat in Finland was launched in 1833, and plied the lakes of Saima; while in 1836—1837 Finland started her first steamship service on the open sea. The development of this service is shown below.

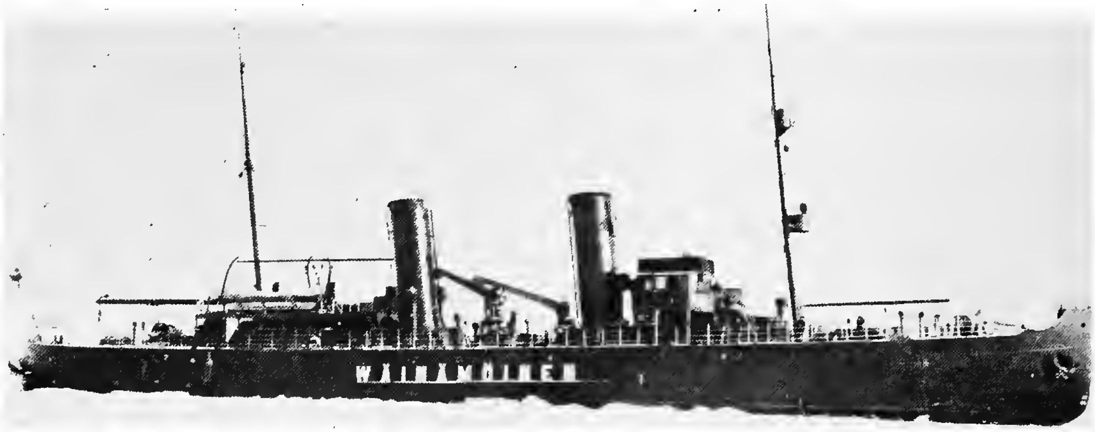


Fig. 154. The ice=breaker Väinämöinen belonging to the State.

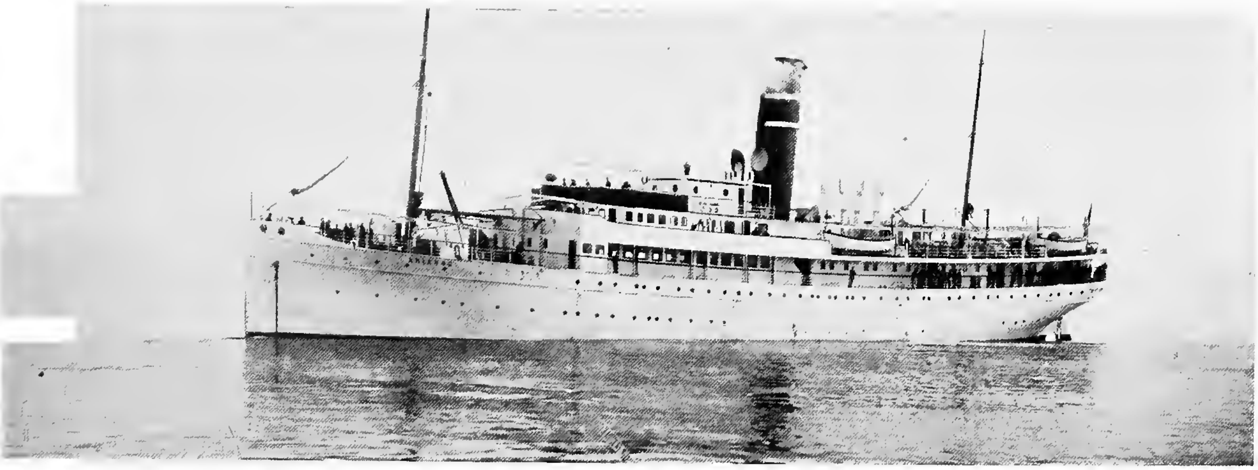


Fig 155. The mail=boat Ariadne belonging to the Finnish Steamship Co. in Helsinki (Helsingfors).

1876	302,270	reg. tons
1886	264,749	» »
1896	265,832	» »
1906	357,614	» »
1916	486,156	» »
1919	514,542	» »

The merchant service comprises the following types of vessels:

		Displacement	
3,084	barges	279,648,40	tons
1,144	sailers	142,721,40	»
693	steamers	82,623,38	»
101	motor=boats	9,548,90	»
5,022	vessels	514,542,08	reg. tons

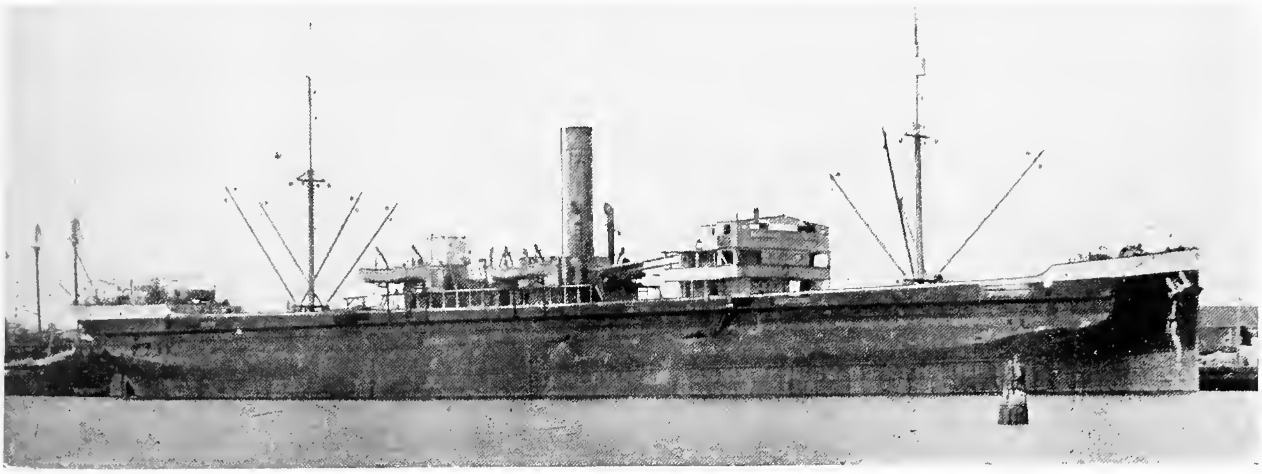


Fig. 156. The Finnish Ocean steamship Garryvale.

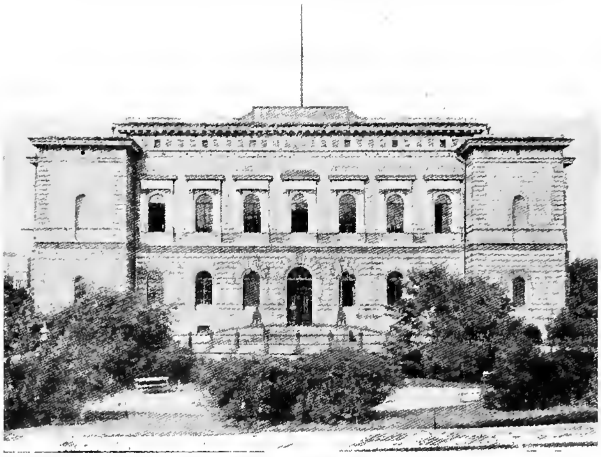


Fig. 157. The Bank of Finland, Helsinki (Helsingfors).

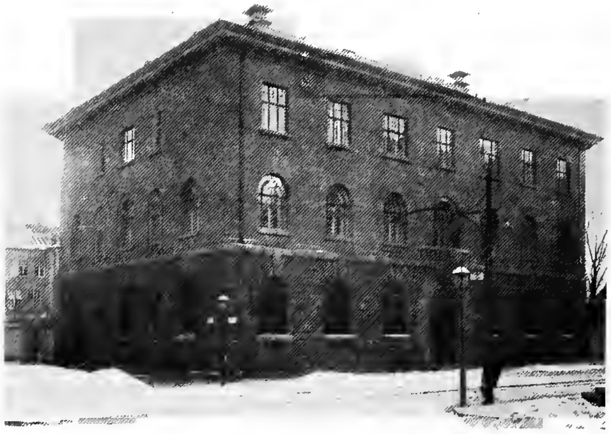


Fig. 158. Branch of the Bank of Finland in Turku (Åbo).

In spite of the war, the position of the large shipping companies is good. Although the largest of these companies, the Finnish Steamship Company, unfortunately lost considerable tonnage during the war, it has however been able to maintain its position fairly well. At present the joint=stock capital of this company is 20 million Finnish marks, and the different funds belonging to it amount to several millions more. Among large steamship companies, founded during or after the war, and with a capital of more than a million, may be mentioned the Finland American Line Ltd, the Transoceanic Line Co. Ltd, and Uusikaupunki Ocean Shipping C:o Ltd, which maintain a direct service between Finland and America.

Finance.

Among the financial establishments of Finland may be mentioned the commercial banks, the savings=banks and the insurance companies. The Finnish National bank, »Bank of Finland,» was founded in 1811, and since 1867 has been under the direction and control of the Diet. It is the only bank which

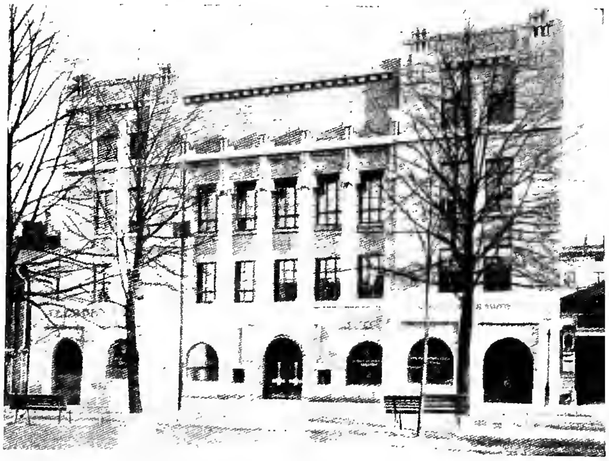


Fig. 159. Mansion of the Land Mortgage Society in Helsinki (Helsingfors).

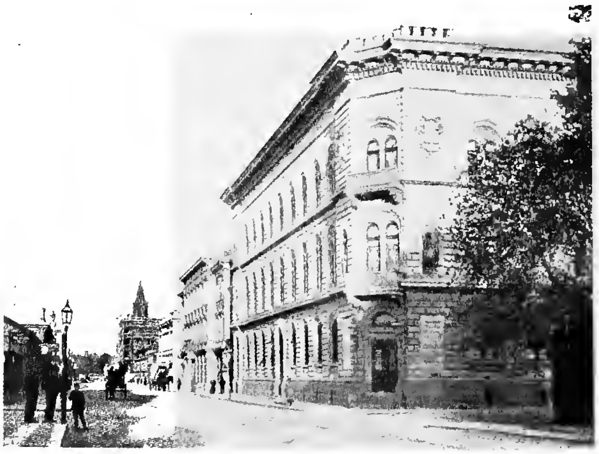


Fig. 160. Savings Bank in Åbo, the oldest in the country, founded in 1823.

Fig. 161. Branch of the Bank of Finland in Viipuri (Viborg).

Fig. 162. Branch of the Bank fo Finland in Kotka.

has the right to issue bank=notes, and in regard to foreign money transactions it also possesses special privileges.

The recent rapid growth of the Bank of Finland is shown in the following table:

	Notes in circulation		Cover for the issue of notes		Total balance million marks
1870	36,6	million marks	36,7	million marks	53,4
1880	48,6	» »	65,6	» »	86,4
1890	52,5	» »	53,6	» »	96,6
1900	71,1	» »	74,7	» »	135,8
1910	123,9	» »	138,0	» »	233,8
1917	764,5	» »	944,5	» »	1,035,8
1918	1,156,2	» »	1,233,0	» »	1,356,6
1919	1,123,9	» »	1,195,1	» »	1,397,9

Fig. 163. The Stock Exchange in Helsinki (Helsingfors).

Fig. 164. The Vasa Joint Stock Bank in Helsinki (Helsingfors).

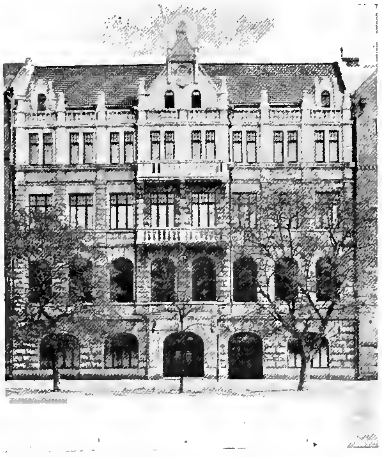


Fig. 165. Savings Bank in Helsinki (Helsingfors).

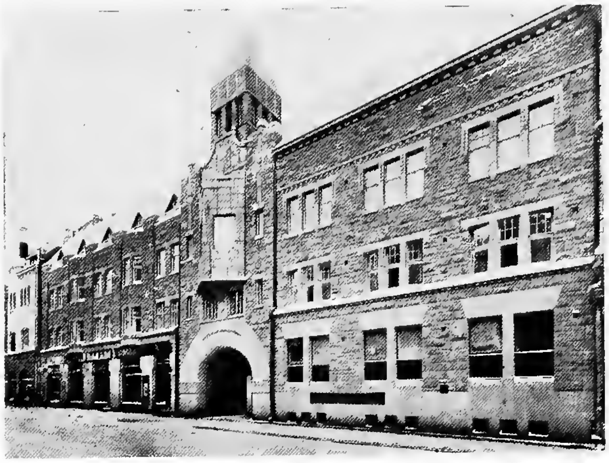


Fig. 166. Branch of the National Joint Stock Bank (Kansallis-Osake-Pankki) in Tampere (Tammerfors).

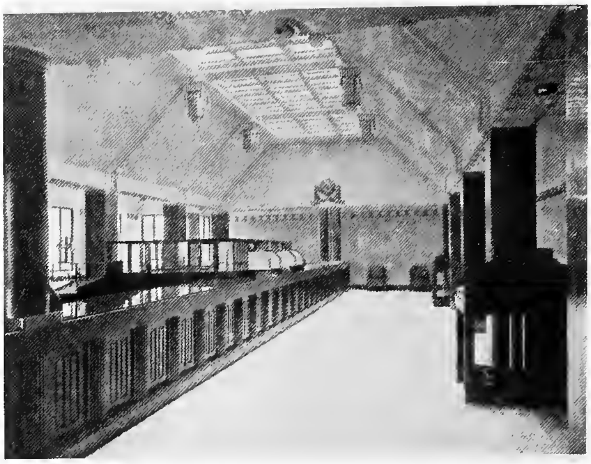


Fig. 167. Interior of the Turku (Åbo) branch of the National Joint Stock Bank (Kansallis-Osake-Pankki).

Besides the National bank, there are numerous prominent commercial banks, the oldest of which was founded in the beginning of the 1860 decade. The development of the private banks is shown in the following table:

	Capital of banks	Deposits
1862	3,0 million marks	2,8 million marks
1870	3,6 » »	21,2 » »
1880	16,0 » »	42,2 » »
1890	21,8 » »	104,3 » »
1900	50,6 » »	316,5 » »
1910	121,4 » »	588,6 » »
1913	159,9 » »	679,4 » »
1917	325,3 » »	2,015,3 » »
1918	539,3 » »	2,962,5 » »
1919	900,6 » »	3,531,1 » »

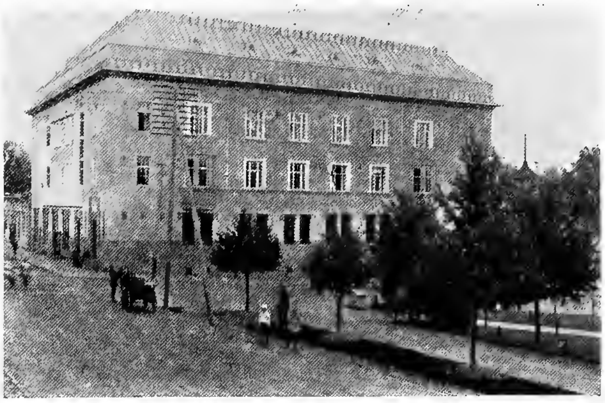


Fig. 168. Branch of the National Joint Stock Bank (Kansallis-Osake-Pankki) in Jyväskylä.

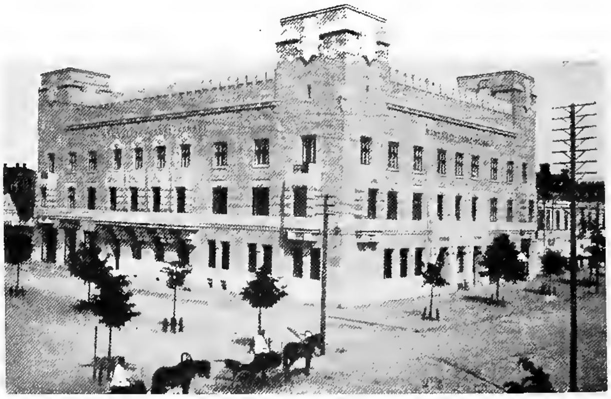


Fig. 169. Branch of the National Joint Stock Bank (Kansallis-Osake-Pankki) in Lahti.

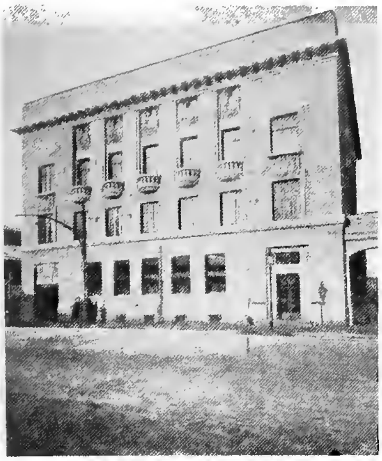


Fig. 170. Branch of the National Joint Stock Bank (Kansallis-Osake-Pankki) in Turku (Åbo).

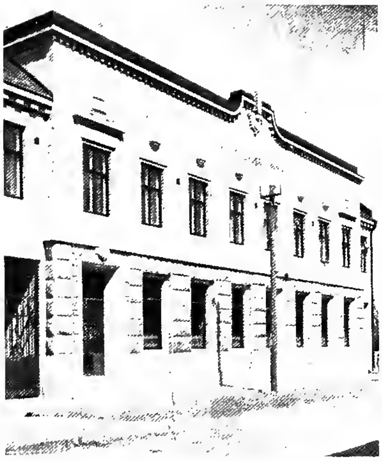


Fig. 171. Branch of the Natinal Joint Stock Bank (Kansallis-Osake-Pankki) in Lappeenranta (Villmanstrand).

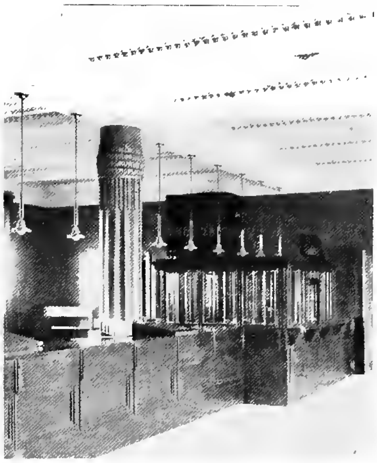


Fig. 172. Interior of the Lappeenranta (Villmanstrand) branch of the National Joint Stock Bank (Kansallis-Osake-Pankki).

During the last fifty years only two of the commercial banks have suffered bankruptcy, and these were quite small banks. The largest of the private banks in Finland are »Kansallis-Osake-Pankki» (National Joint Stock Bank Ltd), with a capital of 90 million Finnish marks and a reserve fund of 50 million, »Föreningsbanken i Finland—Suomen Yhdyspankki» (The Union Bank of Finland), and »Nordiska Aktiebanken för handel och industri—Pohjoismaiden Osakepankki kauppaa ja teollisuutta varten» (The Northern Joint Stock Bank for Commerce and Industry); the two, last mentioned banks have now amalgamated under the name of »Nordiska Föreningsbanken — Pohjoismaiden Yhdyspankki» (The Northern Union Bank), and their joint capital amounts to 100 million Finnish marks and the reserve funds to 65,2 million.

Another important amalgamation of banking interests took place this year, namely the »Åbo», »Lantmanna» and »Wasa banks» have combined under the name of »Unionbanken i Finland A.B—Suomen Liittopankki O.Y.» (The United Banks of Finland). Although the rapid advance in banking during latter years may be regarded as to some extent due to inflation caused by the war; however, it must nevertheless be admitted that our banks are most sound and reliable; this was also the case during the war, as is clearly shown by the statistics given earlier in the text.

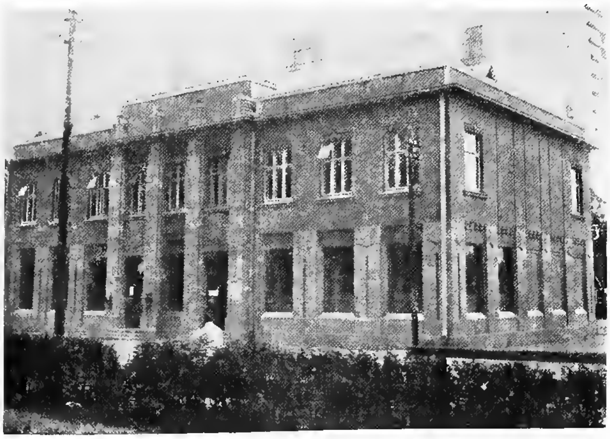


Fig. 173. Branch of the National Joint Stock Bank (Kansallis-Osake-Pankki) in Kouvola.

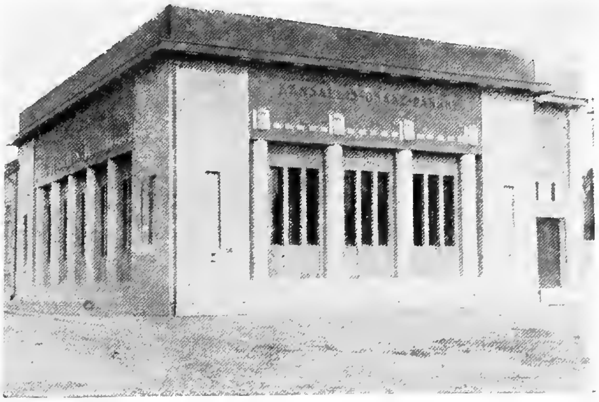


Fig. 174. Branch of the National Joint Stock Bank (Kansallis-Osake-Pankki) in Iisalmi.

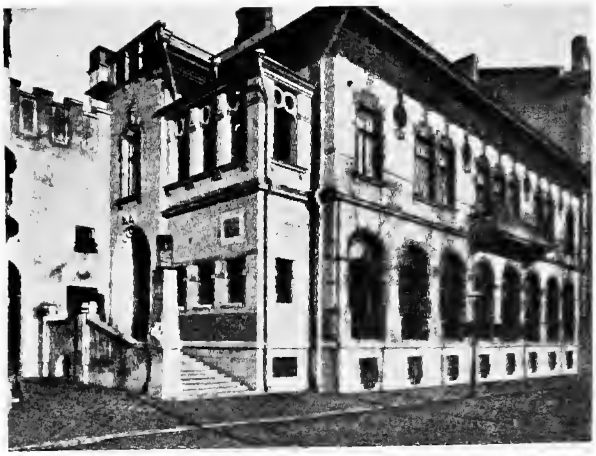


Fig. 175. Branch of the Joint Stock Northern Union Bank (A.B. Nordiska Föreningsbanken) in Viipuri (Viborg).

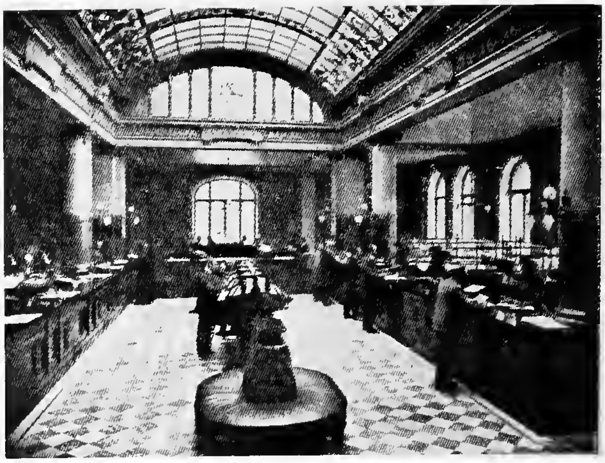


Fig. 176. Interior of the Head Branch of the Joint Stock Northern Union Bank in Helsinki (Helsingfors).

The first municipal savings-bank in Finland was opened in the year 1823, and the first provincial savings-bank in 1847. Their development is shown by the figures given below:

	Number of savings-banks	Number of depositors	Deposits
1830	2	—	0,2 million marks
1880	107	36,470	14,4 »
1900	193	141,081	77,6 »
1910	375	291,603	228,3 »
1913	404	348,606	301,5 »
1917	437	462,771	604,0 »
1918	443	488,663	772,2 »

Every parish has a savings-bank, though some parishes have united together and formed a common savings-bank.

The insurance companies, especially those for life-insurance, have already played a very important rôle in the national economy of Finland. The life-insurance companies are patronized by people of all

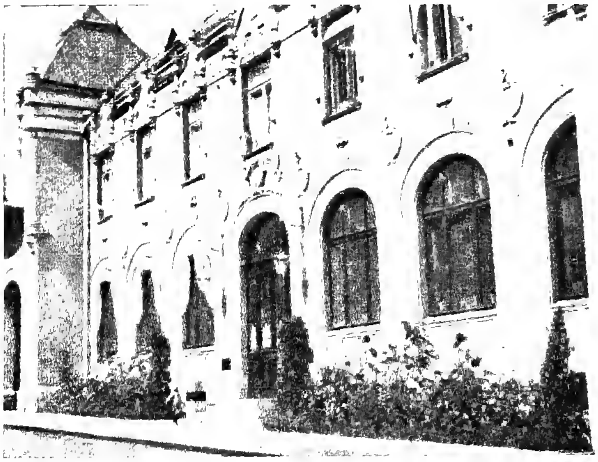


Fig. 177. Branch of the Joint Stock Northern Union Bank in Tampere (Tammerfors).

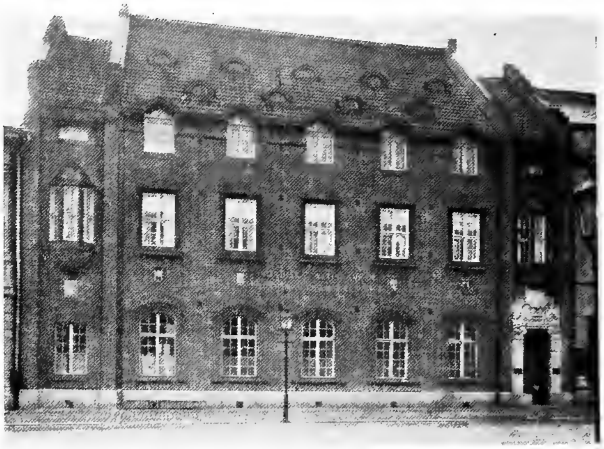


Fig. 178. Branch of the Joint Stock Northern Union Bank in Turku (Åbo).

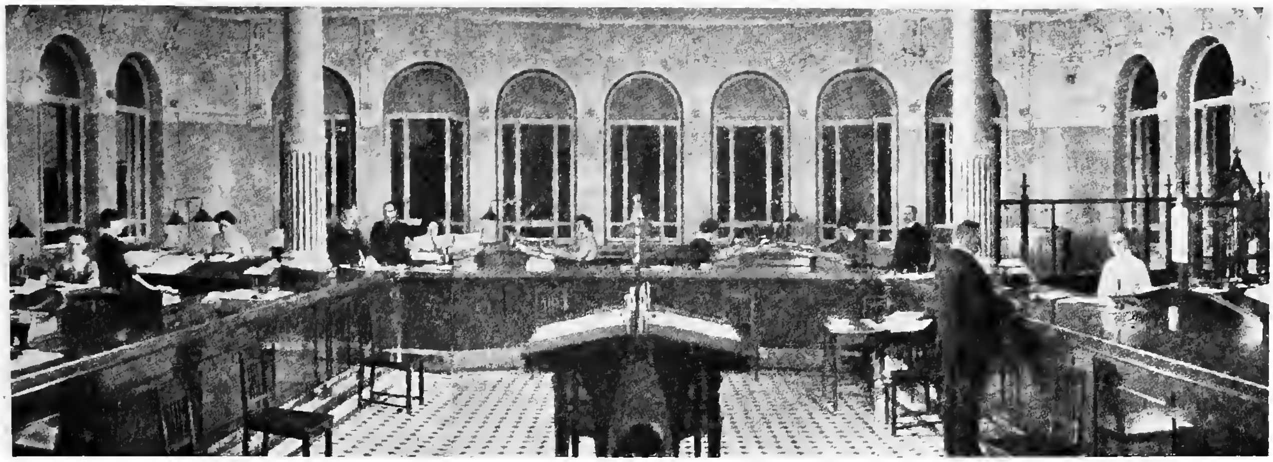


Fig. 179. Interior of the branch of the Joint Stock Northern Union Bank in Tampere (Tammerfors).

classes and are continually increasing the sphere of their activities. The development of these companies may be gathered from the following figures.

	Total insurance stock of all life=insurance companies	Insurance stock of companies in Finnish hands
1892	118,4 million marks	60,9 million marks
1902	239,0 » »	155,9 » »
1912	726,0 » »	661,3 » »
1915	840,6 » »	794,1 » »
1916	952,0 » »	907,7 » »
1917	1,132,0 » »	1,089,6 » »
1918	1,159,3 » »	1,123,1 » »

97% of the life=insurance policies, taken out during 1918, belonged to Finnish companies, and only 3 % to foreign companies. The average value of insurance per head of the entire population was in 1918 351,30 marks. The rapid progress of life=insurance in Finland is shown by the fact that, in the course of thirty

Fig. 180. Branch of the Joint Stock Northern Union Bank in Kotka.

Fig. 181. Branch of the Joint Stock Northern Union Bank in Oulu (Uleåborg).

Fig. 182. Salama Life Insurance Company in Helsinki (Helsingfors).

Fig. 183. Imatra Fire Insurance Company in Helsinki (Helsingfors).

Fig. 184. Pohjola Insurance Company (Fire and Marine) in Helsinki (Helsingfors).

years, such an institution as the »Mutual Life Insurance Company Suomi» has sprung up. It is not only the largest business of its kind in Finland, but the largest in the whole of Northern Europe.

The development of the fire-insurance companies is shown by the following figures:

	Total insurance stock of all fire-insurance companies	Total insurance stock in Finnish companies
1897	1,503,8 million marks	1,153,1 million marks
1900	1,910,3 »	1,491,9 »
1910	3,511,0 »	2,996,2 »
1915	4,773,2 »	4,170,4 »
1916	5,538,0 »	4,960,2 »
1917	6,441,6 »	5,978,9 »

Thus 93 % of fire-insurance policies contracted in 1917 were held by Finnish companies and 7% by foreign companies.

Fig. 185. Mansion of the Kaleva Life Insurance Company in Helsinki (Helsingfors).

Fig. 186. The Suomi Life Insurance Company in Helsinki (Helsingfors).

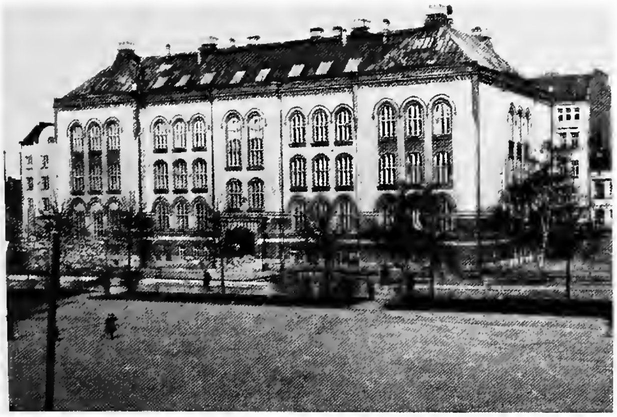


Fig. 187. Training College for Boys in Helsinki (Helsingfors).

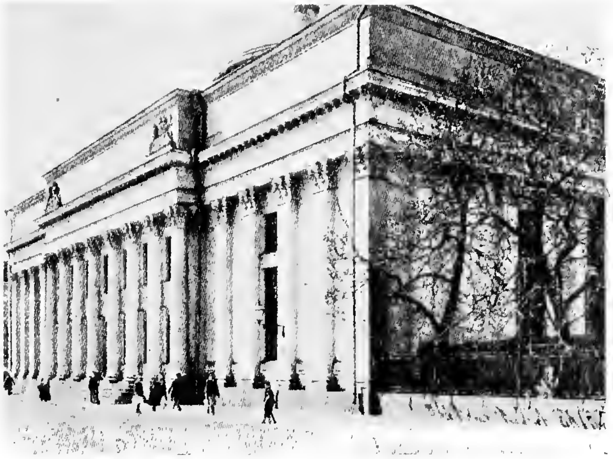


Fig. 188. The Library of the University of Helsinki (Helsingfors)

Education and the Press.

The first books in Finnish were printed in the middle of the sixteenth century, from which date public education may be said to have commenced; it consisted in the systematic teaching of reading. In this work the Clergy of the Church of Finland were the pioneers. Towards the end of the seventeenth century reading was both fairly general and good. In 1686 a law was passed permitting no one to marry who did not know Martin Luther's catechism. The object of this was to further compel every one to learn to read. Although the Clergy were mainly responsible for teaching the people to read, parents and guardians were also obliged to make their children and wards learn to read; neglect or omission in this respect was punished by fines. The lower classes greatly appreciated their education, as a proof of this it may be mentioned that, in the beginning of the eighteenth century, when the cruel hordes of Czar Peter held the country in a grip of terror, the fugitives, who fled and hid themselves in the backwoods, carved on wooden tables the A. B. C. for their children.

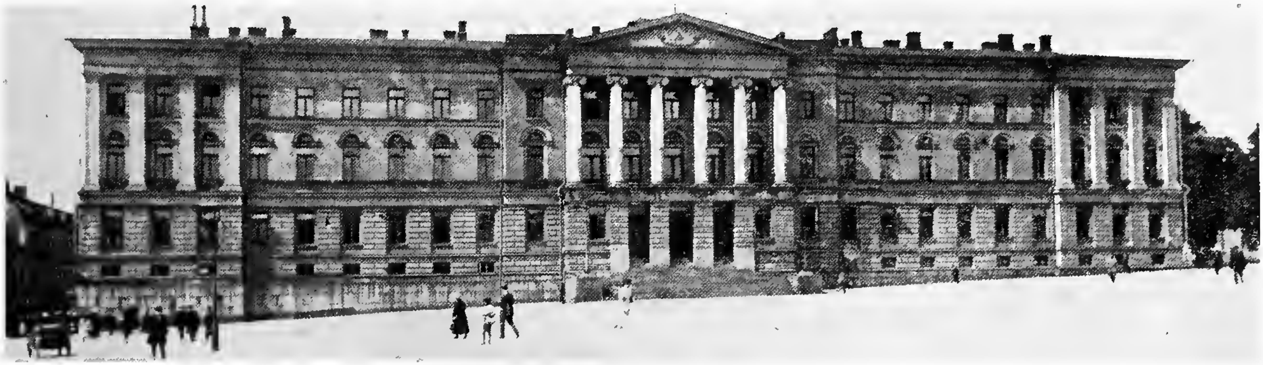


Fig. 189. The University of Helsinki (Helsingfors)

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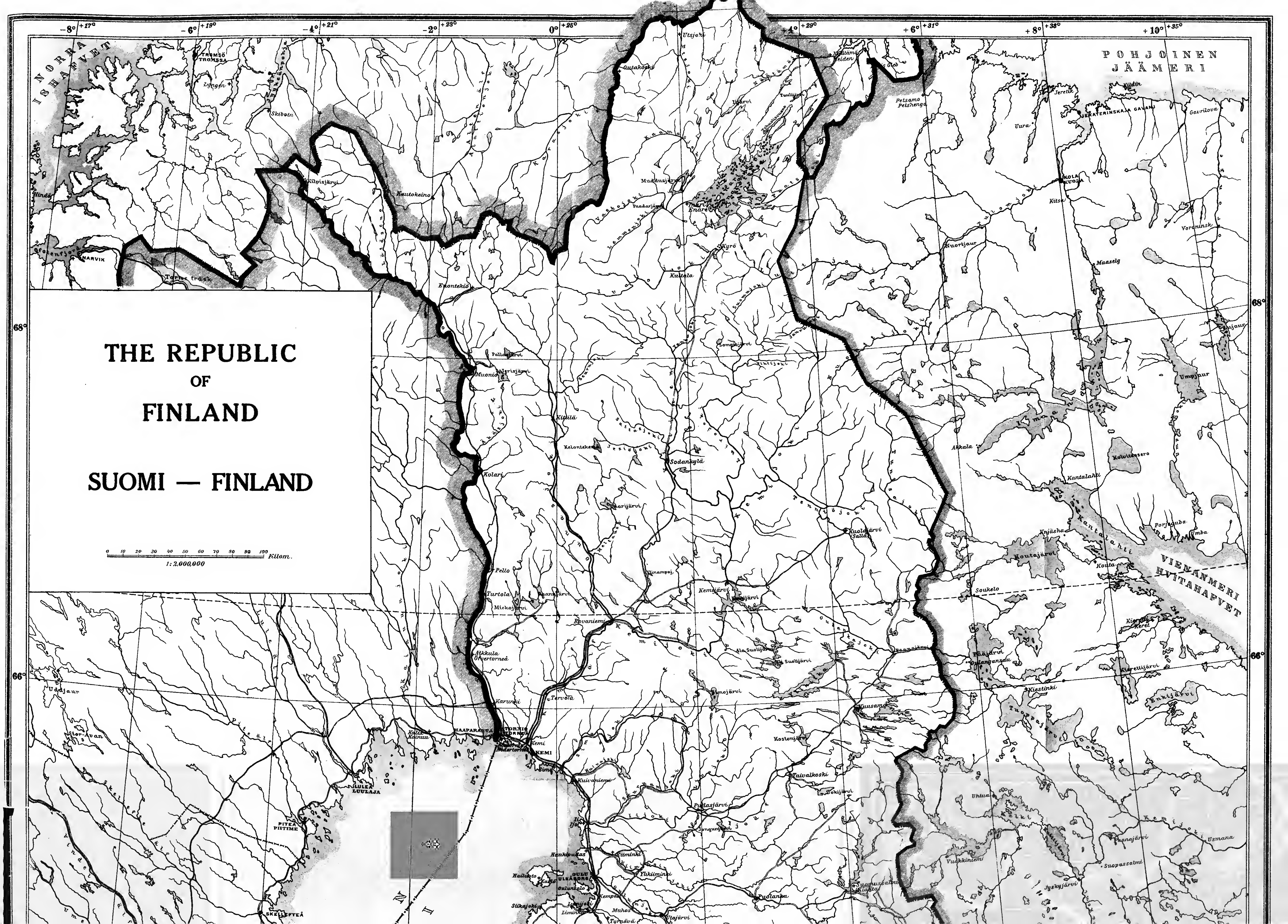
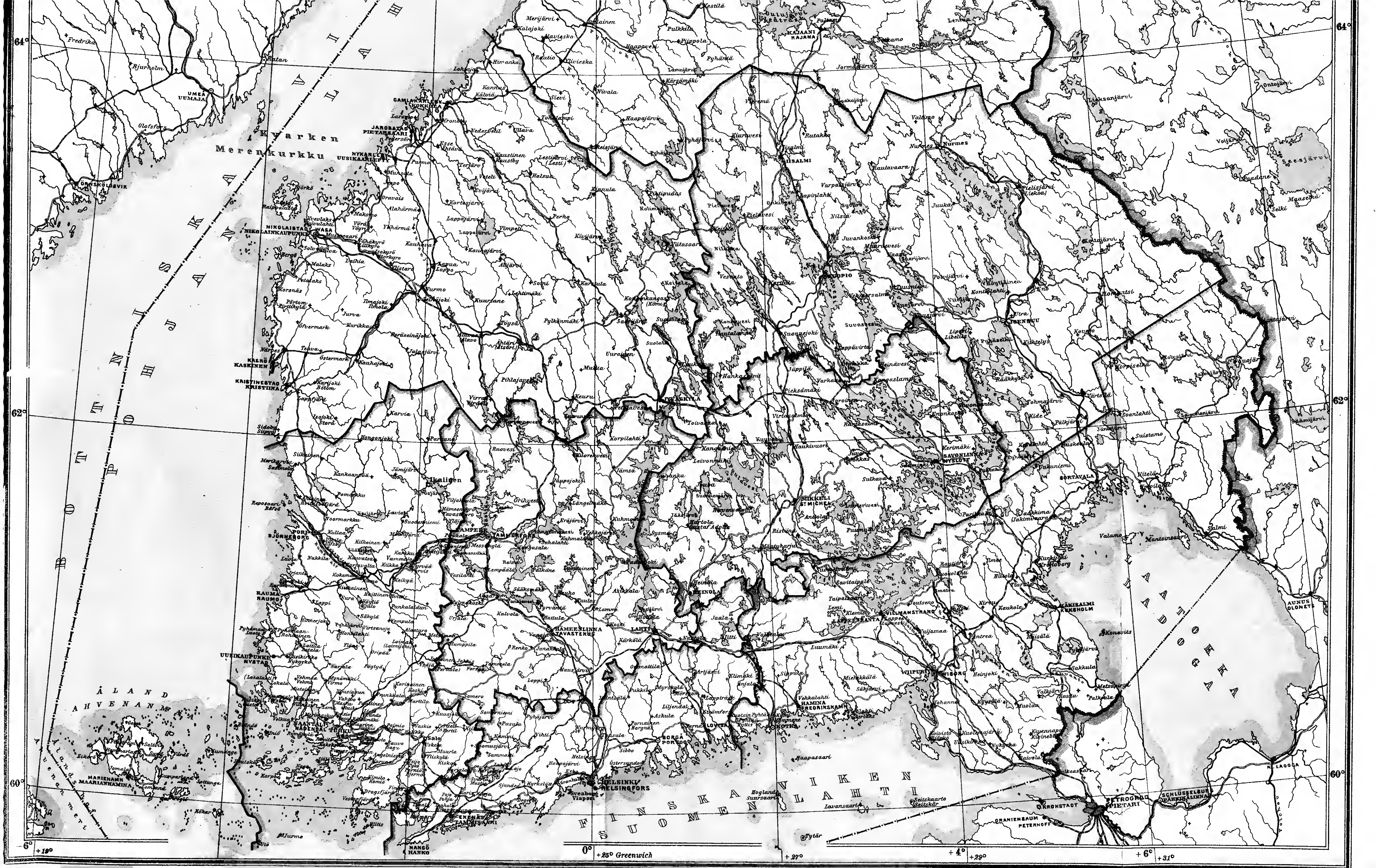




A-B. F. TILGMANN O-Y

Fig. 190. Primary school in a provincial town.

Fig. 191. Primary school in the country

In order to aid the Clergy in their educational work, Church schools were founded in the eighteenth century; these were itinerant, travelling from one village to another. Furthermore the Clergy once a year visited every village and gathering together the inhabitants, examined both adults and children to ascertain if they could read. Finally in 1858 it was enacted that an ordinary elementary school system should be introduced. At the present time there are elementary schools even in the remotest villages of the forestlands. In the year 1917 the number of children attending these schools had risen to 200,572. Practically all the children of the country attend either Church schools, or elementary schools. According to the census taken in 1910 there were then in the country:

Persons with a university or high school education	107,504
Persons able to read and write	1,224,554
Persons only able to read	1,011,402
Illiterates over 15 years of age	21,560

Higher education in Finland is also of an early date. Already in the Middle Ages there were in Finland Cathedral schools and Grammar-schools, while in addition to these, Pedagogical colleges and Gymnasiums (classical high schools) were founded, and in 1640 the University itself was inaugurated. At present there are in Finland one University and one Academy; a second University will be opened

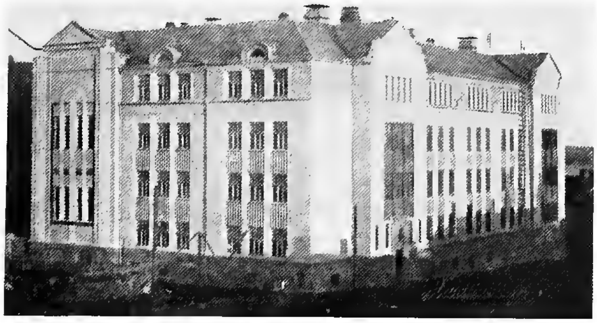


Fig. 192. Primary school in Helsinki (Helsingfors).

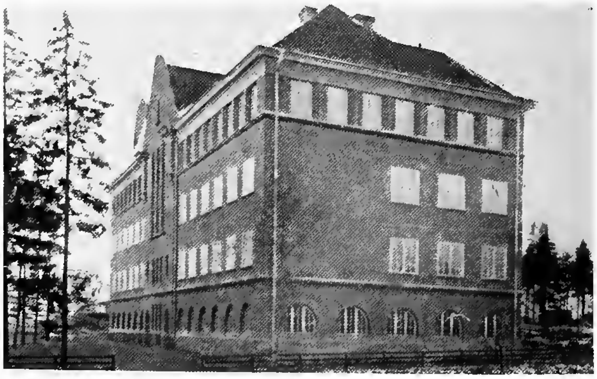


Fig. 193. Primary school in Helsinki (Helsingfors).

Fig. 194. Pupils in the class-room of a primary school.

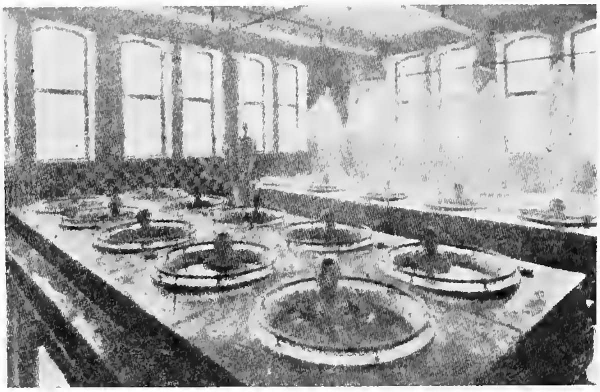


Fig. 195. Bath-room in a primary school.

in the near future. There is also a technical high school, a commercial high school, and a high school for navigation.

The national Press is also illustrative of the high standard of education. The first newspaper in Finland was started in 1775. The growth of the Finnish press is shown by the following statistics:

	Number of newspapers and periodicals
1886	94
1896	177
1906	269
1913	401
1916	383
1917	382
1918	295
1919	340

In 1919 the political newspapers of the country numbered 114.

Fig. 196. Pupils in a primary school during a lesson in hygienic care of little children.

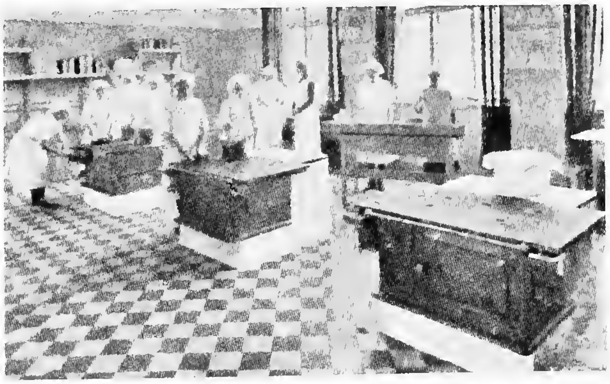


Fig. 197. Kitchen in a primary school.

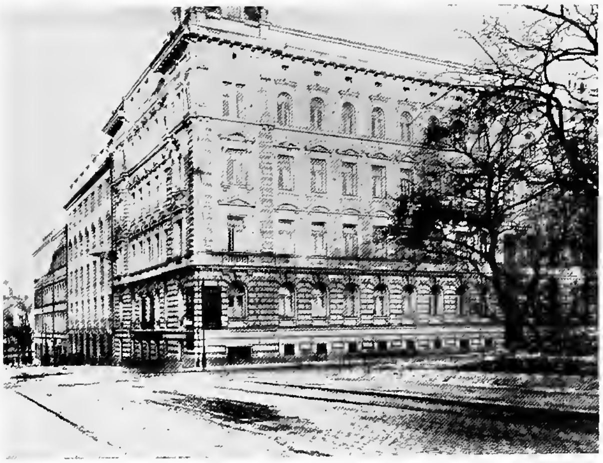


Fig. 198. The newspaper Uusi Suomi's Office in Helsinki (Helsingfors).

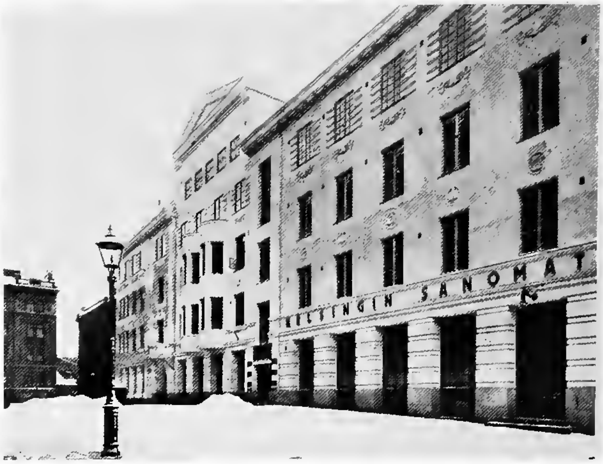


Fig. 199. The newspaper Helsingin Sanomat's Office in Helsinki (Helsingfors).

In 1919 6 political newspapers were published daily
28 » » 6 times a week
2 » » 4 » »
50 » » 3 » »
15 » » 2 » »
13 » » 1 » »

The circulation of some of the largest daily newspapers is shown below:

Helsingin Sanomat	60—65,000	copies
Suomen Sosialidemokraatti	60,000	»
Hufvudstadsbladet	45,000	»
Uusi Suomi	35—40,000	»
Turun Sanomat	30,000	»
Uusi Aura	24,000	»
Karjala	22,000	»
Aamulehti	20,000	»

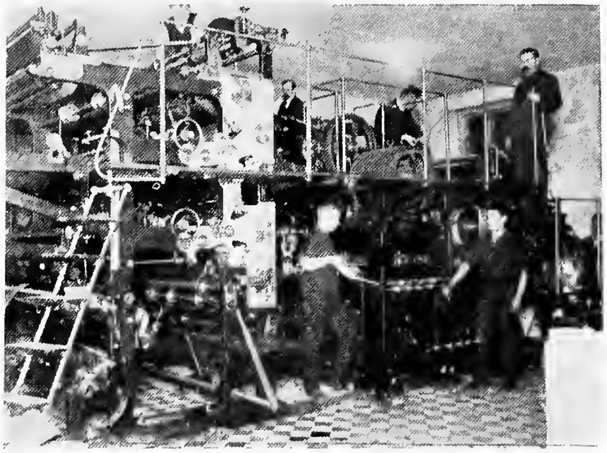


Fig. 200. The newspaper Uusi Suomi's printing press.

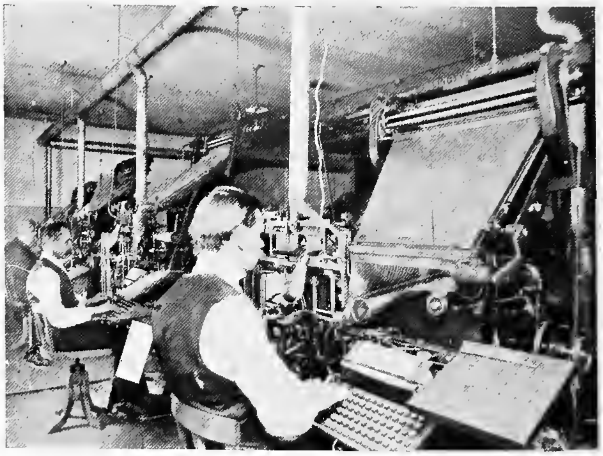
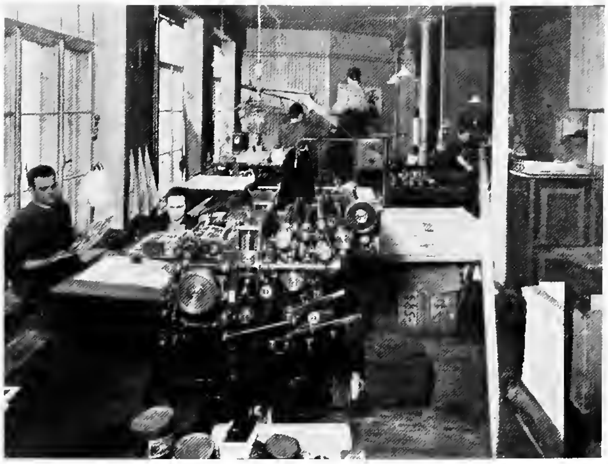


Fig. 201. Printers of the newspaper Uusi Suomi at their machines.



Figs 202 and 203. The oldest printing office in Finland. The property of the Frenckell Printing Company Limited.

The large newspapers have their own publishing houses and printing offices, and are run on the most up to date lines. Rotary presses and modern machinery are in use. The daily edition of the Helsingin Sanomat, Hufvudstadsbladet and Uusi Suomi contain 16 pages. The press is generally well edited and obtains its latest foreign news through reliable agencies and special correspondents.

There are also numerous periodicals and reviews on special subjects, as religion, social science, economics, science, literature, art, and sport etc. The most important are: »Pellervo», the organ of the agricultural co-operative societies (circulation 45—50,000 copies), »Yhteishyvä» (circulation 95,000) and »Kuluttaja» (40,000), organs of the co-operative societies for consumption »Elanto», the organ of the Elanto co-operative society (17—18,000), »Maailma», an illustrated monthly magazine (circulation 40,000), »Otava», an illustrated literary review (12,000) and »Suomen Kuvalehti», an illustrated weekly (50,000).

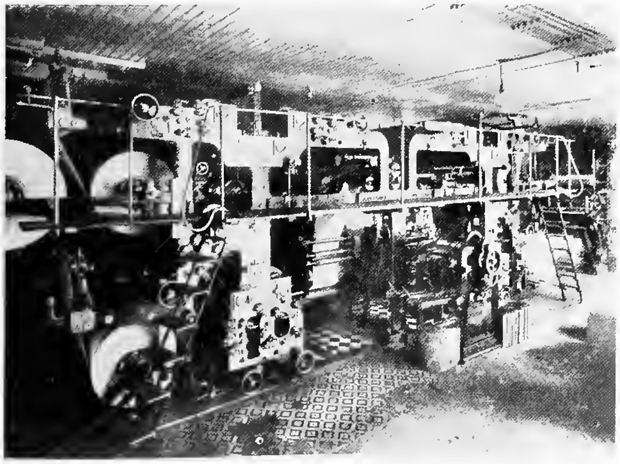


Fig. 204. The newspaper Hufvudstadsbladet's printing office.

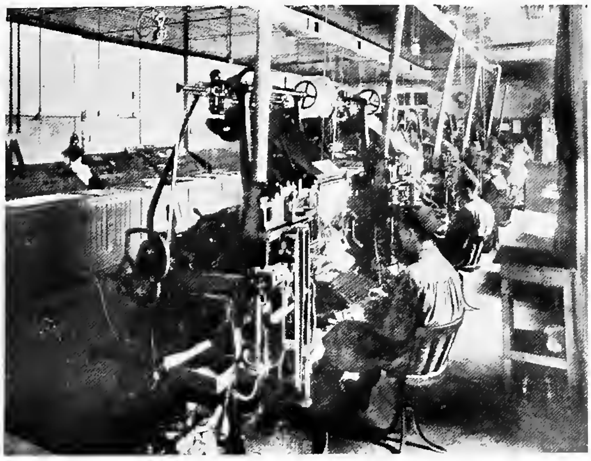


Fig. 205. Printers of the newspaper Hufvudstadsbladet at their machines.

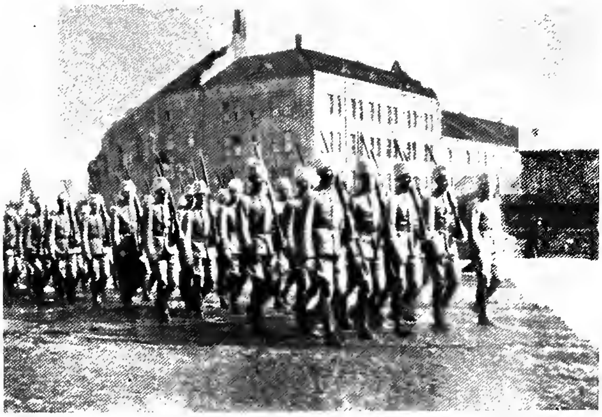


Fig. 206. Military Cadets.

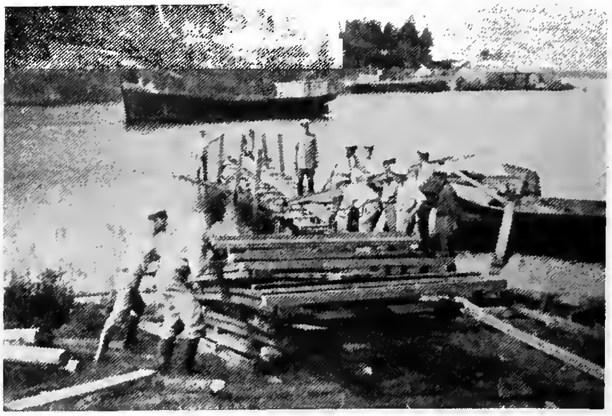


Fig. 207. Pioneers building a bridge.

National Defence.

Since the civil war of 1918, which resulted in Finland's throwing off the old Russian yoke of oppression, dating right back from the time of the inforced act of union, the nation has set itself most energetically to organize its national defence.

This has been a comparatively easy task, as a national army existed from the Middle Ages right up to 1901. The Finns have earned for themselves the reputation of being good soldiers. They are strong and hardy, and in danger brave and cool=headed. Many of the historic battle=fields of Eastern and Central Europe bear witness to heroic deeds done by the Finns in the days when they fought side by side with the Swedes for the defense of their native country and for the freedom of the Faith among the nations.

The Finnish army in peace time, exclusive of the Fleet and coastal artillery, consists of:

36,599	men,
5,044	horses,
252	guns.

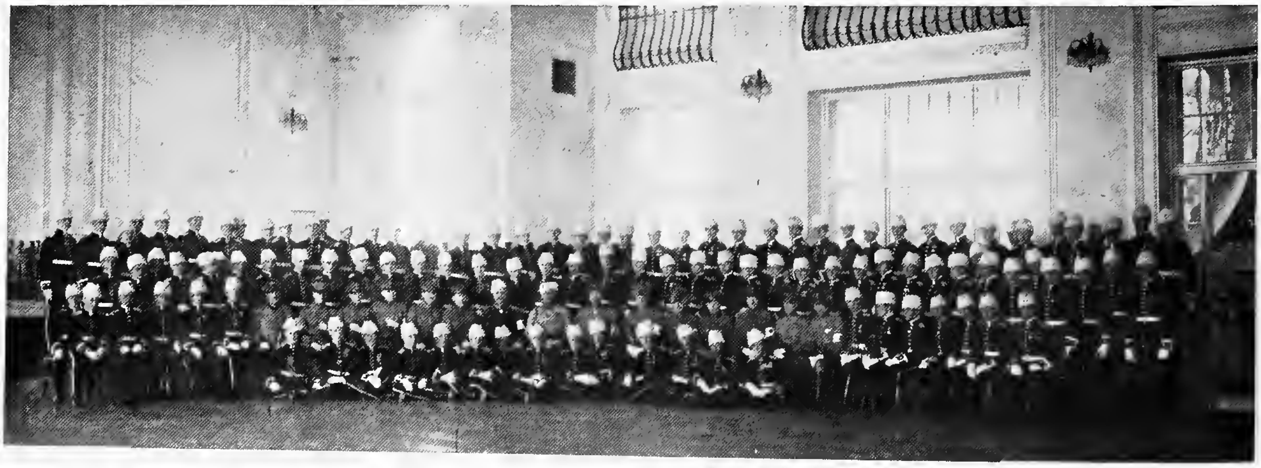


Fig. 208. Military Cadets in the banqueting hall of their college.

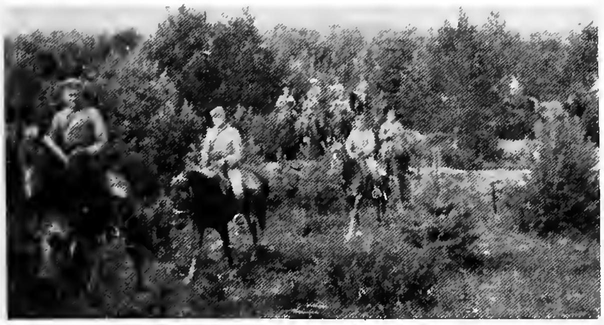


Fig. 209. Dragoons reconnoitring.

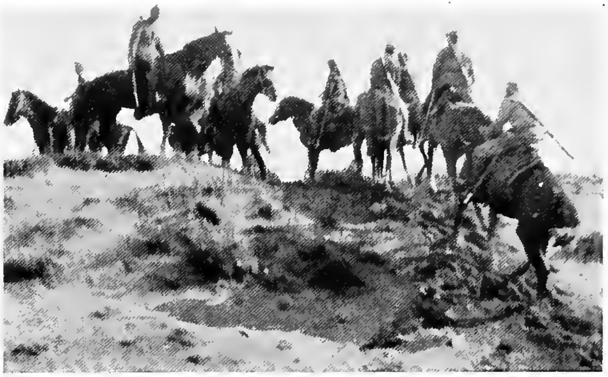


Fig. 210. Dragoons exercising on hilly ground.

In addition to the regular army there is however the Protective corps, or civil guard, composed entirely of volunteers, and 100,000 men strong. This corps is composed of picked men, all revolutionary elements being carefully excluded. They are well armed and have their own staff=officers, with appointed days for regular training and manœuvres.

In conclusion it may be stated with confidence that the free development of the economic and intellectual culture of Finland is fully secured and internal peace guaranteed by this well organized civil guard which, together with the regular army, will be able to overcome any menace from the eastern frontier.

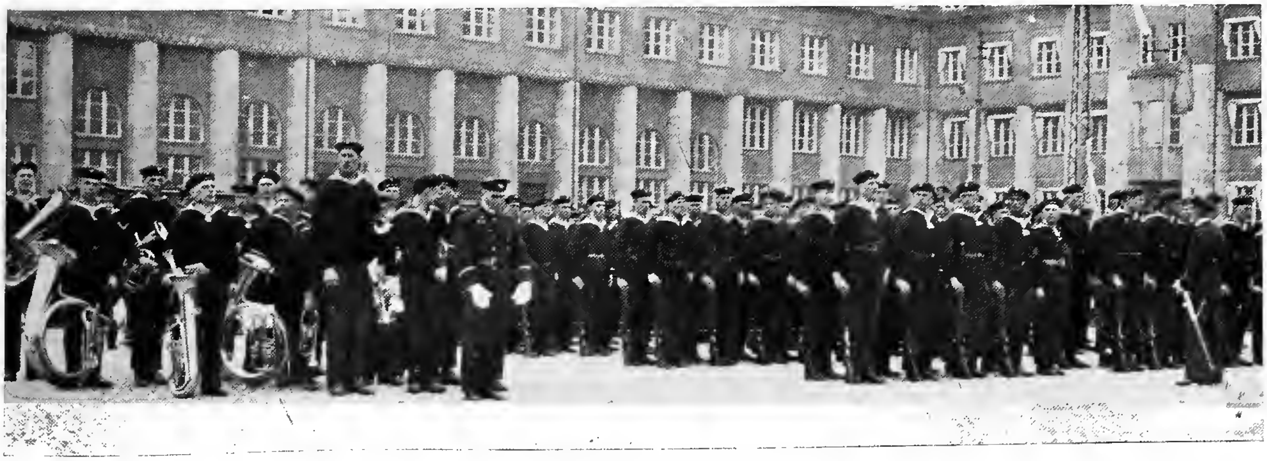


Fig. 211. Regiment of Marines.

Fig. 212. Aéroplanes.

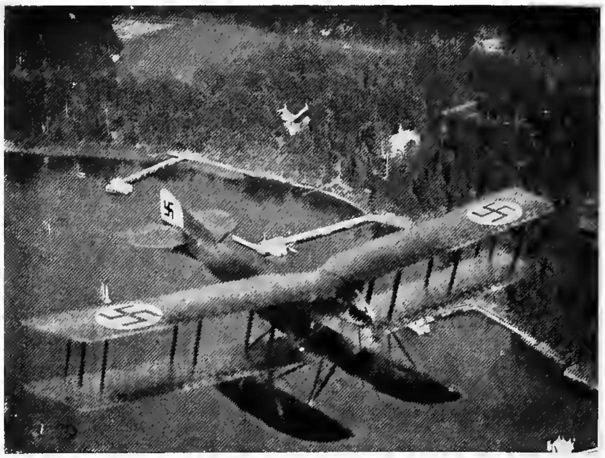


Fig. 213. Aéroplane in the air.

National Wealth.

At the present moment, while economic conditions in Europe have not yet recovered their equilibrium after the war, and consequently all values remain still unsettled, it is exceedingly difficult to estimate the national wealth.

However it is possible to make some approximate calculations by taking as a starting point national wealth before the war, and raising the values then prevalent to a standard, which, as far as it is possible to estimate, represents these values now.

In the present calculation only such accretion of value will be taken into consideration, as is likely to remain permanent.

Forest wealth is here estimated at only three times above pre-war values, while current market-prices stand from 9—10 times higher than in 1914.

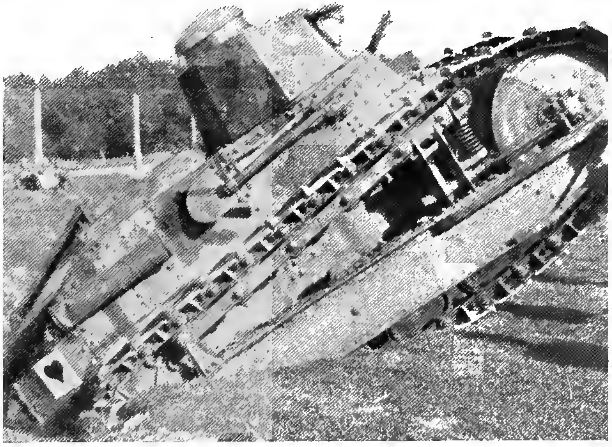


Fig. 214. Tank going over a hole.

Fig. 215. Tank recently landed.

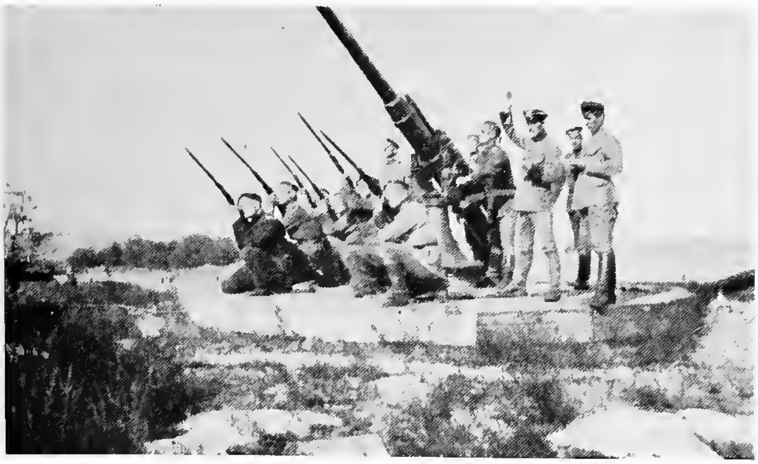


Fig. 216. Cannon zenith.

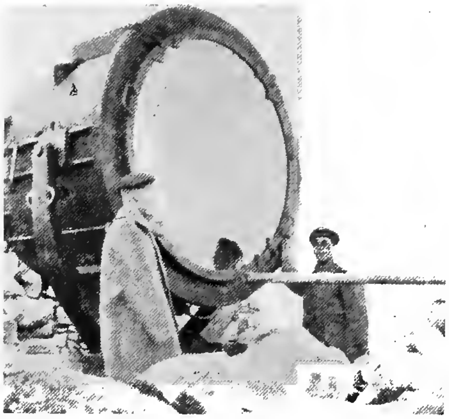


Fig. 217. Military search=light.

Agricultural products are estimated at double their pre=war value, though current market=prices are from 5—6 times higher. According to agricultural statistics, the net production per hectare had already in 1916 risen to 190 Finnish marks, as against 50 marks in 1914, the rise thus being nearly fourfold.

Buildings are estimated at three times, and industrial property, inclusive of plant, at four times the pre=war values, though here also current prices are much higher.

The value of the railway is taken to be four times that in 1914.

The merchant service has been the object of a special estimate.

Furniture and personal property has, on account of the income tax, risen to twice its value in 1914.

Not all classes of property have been taken into account.

Thus the value of roads, telephone and telegraph service, harbours, fortresses, military stores, iron ores, and mines have been entirely omitted.

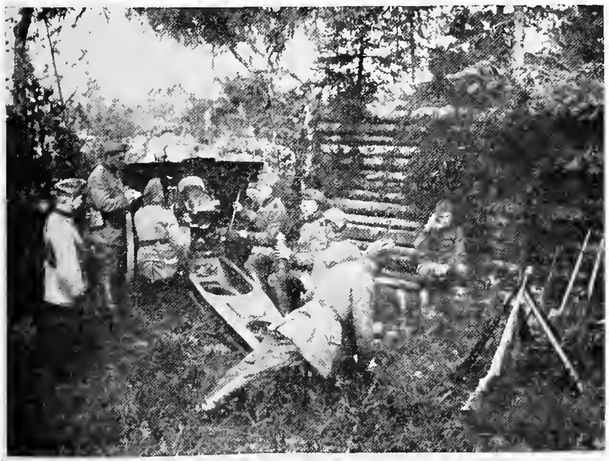


Fig. 218. »Haubits» in activity (picture of exercises).

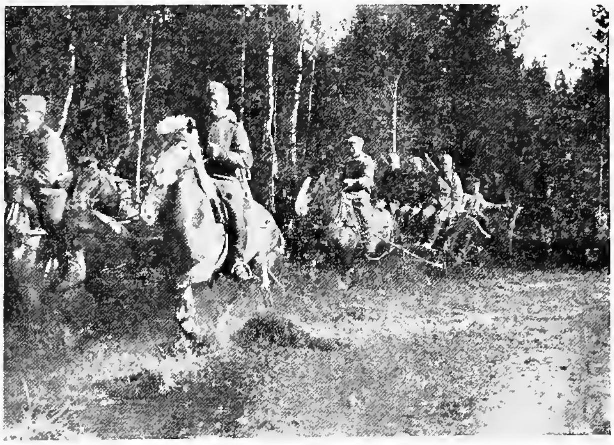


Fig. 219. The artillery on the way to the firing line (picture of exercises).

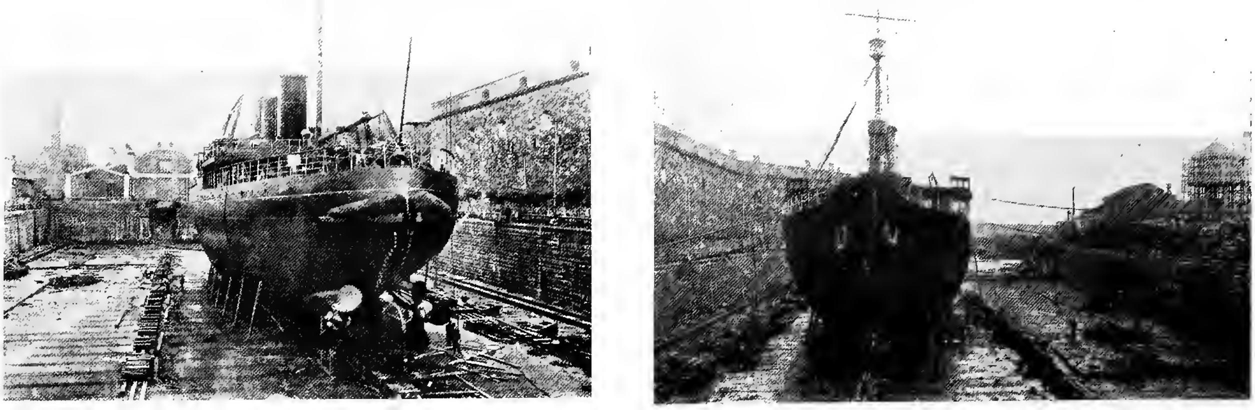


Fig. 220. The largest dry dock in Northern Europe, in the naval port of Suomenlinna (Sveaborg).

From the above calculations it will be evident that every precaution has been taken not to exaggerate the national wealth; but on the contrary, it is safe to say, that in reality it will greatly exceed that indicated by the following figures:

National wealth:

Commercial property	400,0	million	Finnish marks
Industrial »	1,000,0	»	»
Furniture and personal property	2,600,0	»	»
Merchant fleet	350,0	»	»
Railways and canals	2,617,0	»	»
Rapids and real estate including machinery	1,728,0	»	»
Real estate for habitation	6,887,0	»	»
Agricultural wealth	5,482,0	»	»
Forest »	9,174,2	»	»
Total	30,238,2	million	Finnish marks

Fig. 221. Grand parade

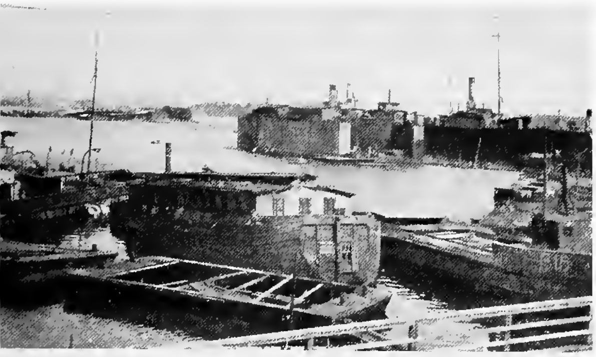


Fig. 222. Floating-docks.

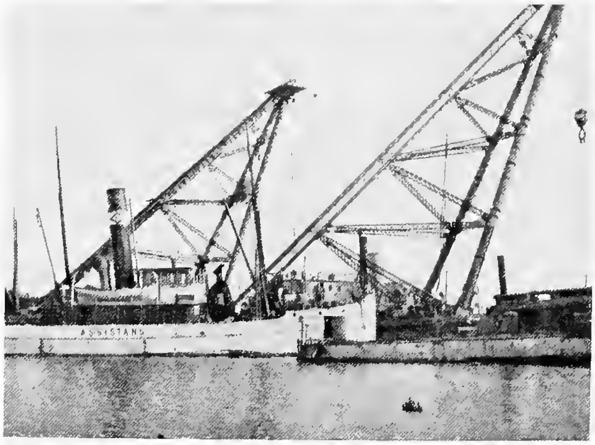


Fig. 223. Floating Cranes.

he standing
oreign debt:

The public debt	358 million marks
Obligation loans	240 » »
Net debt of private banks, 400 million	
Outstanding accounts of the Bank of Finland 344 million	
Balance	56 » »
	Total 654 million marks

In addition to this there are special loans, the value of which is unknown.

tate
roperty:

	Finnish marks
Railways	2,440,000,000:—
Forest wealth	2,294,156,200:—
Building estates	671,206,400·—
Rapids, industrial establishments wholly or partially owned by the State, value of shares held by the State in different private companies	261,016,600:—
Agricultural wealth	259,788,200:—
Canals	100,000,000:—
Shipping	37,644,700:—
Total	6,063,812,100:—

the Civil Guard in Helsinki (Helsingfors).

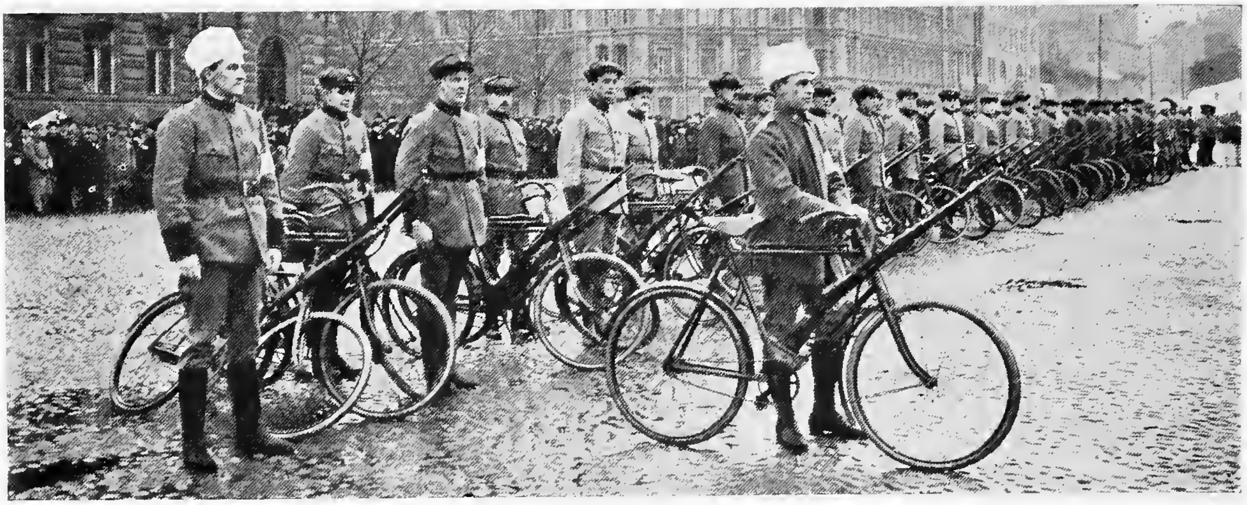


Fig. 224. Troop of bicyclists in the Civil Guard in Helsinki (Helsingfors).

The Public Debt up to November 1919.

		Finnish marks
A.	Foreign loans:	
	Loans from the years 1889, 1895, 1898, 1901, 1903, and 1909	163,520,737
	Loan from Norway in the year 1919 for the purchase of Gutzeit & Co.	163,680,000
	Short period debts, loan from Sweden	30,800,000
	Total	358,000,737
B.	National loans:	
	Communication loan of 1918	120,000,000
	I Freedom » » »	200,000,000
	II » » » »	100,000,000
	Loan of 1919 to augment the capital of the Bank of Finland	350,000,000
	Premium and debenture loan of 1919	75,000,000
	Loan of 1919 for buying Tornator C:o Ltd.	57,152,000
	Short period Freedom-loan	78,676,100
	Short period debts	400,000,000
	Total	1,380,828,100
	In all	1,738,828,837

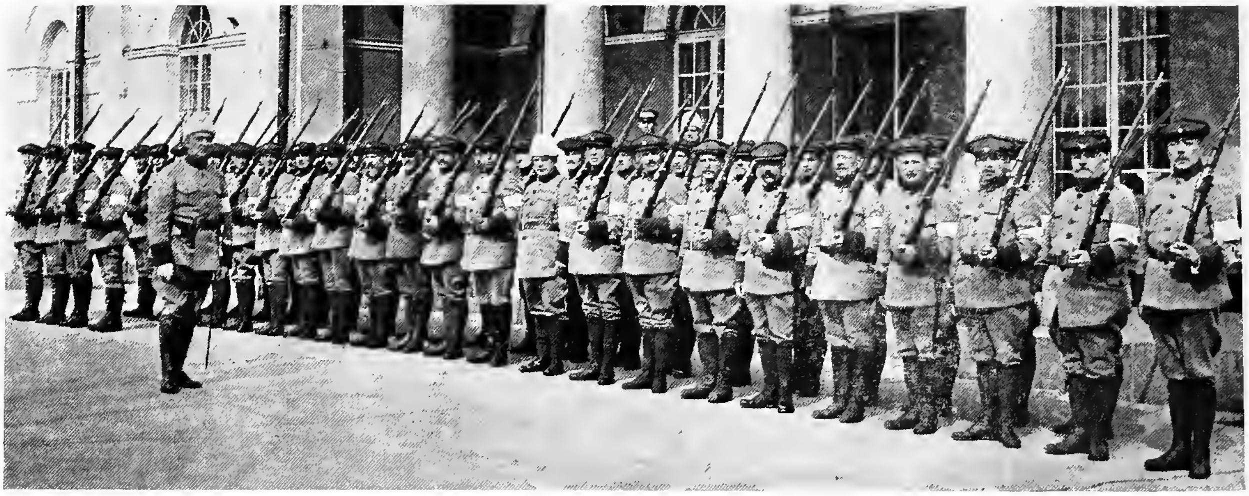


Fig. 225. Troop of the Civil Guard in Helsinki (Helsingfors).